

ECONOMIC PRODUCTS OF INDIA

EXHIBITED IN THE ECONOMIC COURT,

Calcutta International Exhibition, 1883-84.

BY

GEORGE WATT, M.B., C.M., F.L.S.,

BENGAL EDUCATIONAL SERVICE,

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ASSISTED BY NUMEROUS CONTRIBUTORS.

CHEMICAL INFORMATION

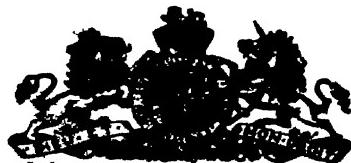
COMPILED BY

CHARLES JAMES HISLOP WARDEN,

INDIAN MEDICAL SERVICE,

PROFESSOR OF CHEMISTRY, MEDICAL COLLEGE, CALCUTTA.

PART V.



CALCUTTA

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ECONOMIC PRODUCTS OF INDIA

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PART V.—Medicinal Products.

NOTE.—Throughout this enumeration of Medicinal Products, to facilitate reference for further particulars, the following indications have been placed under the marginal numbers :—

- * Medicinal Products not referred to in the *Pharmacopœia Indica*.
- Medicinal Products officinal in the *Pharmacopœia Indica*.
- Medicinal Products officinal in both the *British* and the *Indian Pharmacopœia*.
The information printed below the line at the end of each descriptive account has been obtained in consequence of fresh enquiries instituted in connection with this publication.

ABIES.

belmoschus. See *Hibiscus Abelmoschus*, Linn., MALVACEÆ.

ABIES.

Found in Norway, Sweden and Russia; introduced into Great Britain.

The resinous exudation from the stem is officinal in the *Pharmacopœia Indica* and is used as a stimulant and rubefacient; always applied in the form of plaster.

Webbiana, Lindl.

Vern.—*Paladar*, *rewari*, *JHELAM*; *Bddar*, *KASHMIR*; *Rag*, *re*, *tash*, *spun*, *pun*, *HIMALAYAN NAMES*.

A lofty, evergreen tree found on the Himalaya, from the Indus to Bhutan, altitude 7,000 to 13,000 feet.

The dried leaves of this plant (*Talispatra*, HIND. and BENG., *Talispatra*, SANS.) are regarded as carminative, expectorant, stomachic, tonic and astringent, and useful in phthisis, asthma, bronchitis, and catarrh of the bladder. The powdered leaves are often given along with the juice of *Adhatoda Vasica* and honey, and a confection called *talispatra-churna* is prepared from the *talispatra* along with pepper, ginger, bamboo manna, cardamoms, cinnamon and sugar. The *talispatra* also enters into the preparation of numerous complex prescriptions (U. C. Dutt's *Hindu Nat. Med.*) By Ainslie and the earlier writers on Indian Economic Botany, *talispatrie*, *talisapatru*, DEC. and HIND., and *taisha*.

ABRUS.

vidara, SANs., were the vernacular names for the dried leaves and twigs of *Flacourzia Cataphracta*, the *pa:kyala* of Bengal. (Ainslie, II, 407.)

Mr. Gamble, in *Manual of Indian Timbers*, p. 17, gives *talispatri* as the Hindi name for *Flacourzia Cataphracta*, Roxb., and this is also the name given by Babu T. N. Mukharji in his *Amsterdam Catalogue*. I have examined many specimens of the *talispatra* of our native druggists' shops of Bengal, and they have uniformly been the leaves and twigs of *Abies Webbiana*. Dr. U. C. Dutt writes me to say that this is also his experience, and that he is of opinion this is the *talispatra* of the ancient Sanskrit writers. It seems difficult to account, however, for a man of Dr. Ainslie's ability mistaking the ovate leaf of a *Flacourzia* for the needle-shaped leaves of a Pine, and having few or no authors to compile from, he must have personally identified the plants of which he wrote.

Dr. F. Hamilton says the Hindu Doctors of Behar use an infusion of *talispatra* in the treatment of hoarseness. It is probable that the dried leaves of several plants, according to the part of India where met with, receive the name of *talispatra*, provided they are found useful in the treatment of coughs. It seems likely, however, that the leaves of *Abies Webbiana* are the original or true *talispatra*. Dr. Dymock informs me that the *talispatra* of the Bombay shops (also called *Birni*) consists of the leaves and young shoots of *Taxus baccata*, Linn.

The description of the *talispatra* in old books on Indian medicinal plants would agree very well with the leaves of a *Cinnamomum*, much better in fact than with those of an *Abies*. Dr. Moodeen Shariff gives *talishapatri* as the Tamil and Telegu names for *C. Tamala*, Nees, and also the Arabic and Persian for the leaves of that plant. He may be quite right in this opinion, modern usage having appropriated the name to *Abies*.

Hakims affirm that the gum mixed with oil of roses, when taken internally, produces intoxication. This mixture is used externally for headache, neuralgia, &c. (Dr. Emerson.)

ABROMA.

3 Abroma augusta, Linn., STERCULIACEÆ.

Vern.—*Ulatkambal*, BENG.

A small bush, widely spread, native or cultivated, throughout the hotter parts of India.

The bark of the root is an emmenagogue, which does not appear to have received the attention which it deserves. In the *Indian Medical Gazette* for 1872, Mr. Bhoobun Mohun Sircar gives an account of the uses of this drug, specially recommending it in the treatment of dysmenorrhœa.

ABRUS.

Abrus precatorius, Linn., LEGUMINOSÆ.

INDIAN OR WILD LIQUORICE ROOT, Eng.; LIANE À REGLISSE, Fr.

Vern.—*Gunchi*, *rati*, *chirmitti*, HIND.; *Gunja*, *ghungachi*, BOM.; *Maspati*, NEPAL; *Kunch*, *gunch*, *chun-hatt*, BENG.; *Gunja*, *krish*, *nala*, *kaka*, *chinchi*, SANs.; *Aasnudduk*, ARAB.; *Chashmekhuros*, PERS.; *Gun-dumant*, TAM.; *Ghurie-ghonad*, TEL.

A beautiful climber, met with all along the Himalayas, ascending to altitude 3,000 feet. and spreading through the plains of India to Ceylon and Siam.

ABUTILON

There are three principal varieties described by Roxburgh :—

- 1st—With rose-coloured flowers, red seed and black eye.
- 2nd—With dark-coloured flowers, black seed and white eye.
- 3rd—With white flowers, white seed.

The seeds are used by goldsmiths for weights, and 8 seeds make one másha, and 12 máshas one tola.

The root and the seed are used in native medicine; the latter, if powdered and injected into the blood, is fatal in about 24 hours. The former, Ainslie and O'Shaughnessy say, "is a perfect substitute for liquorice in every way." Modern authors differ with them in this opinion. According to Sanskrit writers it is emetic and useful in poisoning. Dr. Bidie says: "The Abrus root has little or no saccharine taste, and would form a very indifferent substitute for liquorice." Liquorice root is largely imported into India and extensively used in native medicine, and probably often sold under the same vernacular name as that given to the Abrus root.

Dr. Dymock, speaking on this subject, says: "I consider the root to bear very little resemblance to liquorice, either as regards appearance or qualities; as pointed out by Dr. Moodeen Shariff, the leaves are by far the sweetest part of the plant, and from them a tolerable extract may be made."

Mr. Walker recommends a lotion prepared from the ground seeds in the treatment of certain eye diseases, producing advantageous purulent inflammation of the conjunctiva.

In his *Sanskrit Materia Medica* Surgeon U. C. Dutt says the seeds are "used internally in affections of the nervous system and externally in skin diseases, ulcers, affections of the hair." They are pounded and made up with mercury, sulphur, ním seeds, hemp leaves and cotton seeds, &c., &c. In such a combination the powdered seeds may be rendered inert, but it seems a dangerous practice to apply them to ulcers or other sores, since it has been proved repeatedly that a hypodermic injection of the powdered seed is absolutely fatal. In fact, this injection is only too frequently resorted to in India for criminal purposes, either to destroy human life or that of cattle.

Dr. Warden, experimenting with the poisonous property of the seeds, found that half a seed rubbed down with a small quantity of water and injected into the thigh of a full-grown cat produced fatal effects in 24 hours. He succeeded in isolating an acid which he called Abric Acid; it proved to be non-poisonous. While the seeds used in this manner are highly poisonous, it is remarkable that when boiled they may be eaten, and in fact are reported to constitute an article of food in Egypt.

An extract of Abrus root is regarded as officinal in the Indian Pharmacopœia.

ABUTILON.

Abutilon indicum, G. Don, MALVACEÆ.

Vern.—Kanghi, kungani, HIND.; Potari, BENG.; Mashtuk-gh-oni, ARAB.; Darakhte-shairah, PERS.; Petári, madmi, kangháti, chakra-bhenda, BOM.; Petari tép-kadi, Tubocuty, GOA; Tatti, TAMIL. The seeds are known as *Balabija*, BOM.

The seeds are known in the bazars as *Balabija*.

A small shrub, common throughout the hotter parts of India.

The roots, bark, leaves and seeds are used in native medicine, and said to be useful in chest affections. An infusion of the leaves or of the roots is prescribed in fevers as a cooling medicine (Ainslie). The seeds are used as a laxative in piles. They are called *balbi* in

4 *Bombay*, and are supposed to be laxative and defluent, and, like the leaves, are very mucilaginous.

A. indicum and *A. asiaticum* are used indiscriminately, if not one or two other species. A decoction of the bark, leaves, and seeds together has been long used by the Hindûs on account of their mucilaginous and diuretic properties, much in the same way as the Marsh-mallow of Europe. (*Dymock, Mat. Med., Western India.*)

A decoction is used as a mouth-wash in cases of toothache and tender gums. Boiled milk, whisked with the fibrous twigs, coagulates; the fluid obtained by decantation is by hakims regarded as efficacious in haemorrhoids when given internally. (*Dr. Emerson.*)

ACACIA.

6 *Acacia arabica*, Willd., LEGUMINOSÆ.

THE BABUL TREE OR INDIAN GUM ARABIC TREE.

Vern.—*Babûl, kikar, HIND.; Vabbula (Bâbhula), barbara, SANS.; Karomughilan, PERS.; Ammughilan, ARAB; Kali-kikar, DEC.; Babbila, bâvala, kali-kiker, râma-katti, BOM.; Karu-velam, TAM.; Nallatumma, TEL.*

A small, thorny tree, common everywhere.

The bark is a powerful astringent and demulcent. It occurs in coarse, fibrous pieces of a deep reddish colour. It may be used in external applications as a substitute for oak-galls. It has been found a valuable remedy in prolapsus ani, as an external applicant in leucorrhœa, and has been recommended as a poultice for ulcers attended with sanguous discharge. (*Pharm. Ind.*)

Gum acacia or the gum from *Acacia vera* is used for the preparation of the mucilage; the *Pharm. Ind.* says that the gum of *Feronia Elephantum, Corr.*, is a better substitute than the gum from *A. arabica*.

The tender leaves beaten into a pulp are given in diarrhoea as an astringent (*U. C. Dutta*).

The gum is used along with water as a vehicle for bismuth, oxide of zinc, and also in lozenges.

Some native hakims say it is very useful in diabetes mellitus, as the gum is not converted into sugar. The bark and seeds burnt and powdered are used as a tooth-powder. (*Dr. Emerson.*)

7 *A. Catechu*, Willd., LEGUMINOSÆ.

CATECHU, Eng.; CACHOU, Fr.; CATECHU, Ger.

Vern.—*Khair, HIND.; Khaderi, khera, khaira, BOM.; Katthak, DEC.; Khoira, koir, ASS.; Khadir, SANS.; Khoiru, URIVI; Karangalli, bâga, kasku kuttî, TAM.; Kanchu, TEL.; Rat-khiri, CINGH.; Sha, BURM.*

A moderate-sized, gregarious, thorny, deciduous tree, common in most parts of India and Burma, extending in the Sub-Himalayan tract westward to the Indus. (*Gamble.*)

The extract known as Catechu or Cutch is used medicinally as an astringent in fevers and other maladies. It is peculiarly useful in diarrhoea, with pyrosis, depending upon a relaxed state of the intestinal mucous membrane. Locally, it has also been used with much advantage in sponginess of the gums, relaxation of the uvula, hypertrophy of the tonsil, and as an astringent injection in the treatment of leucorrhœa and

atonic menorrhagia (*Pharm. Ind.*) It is prepared by boiling down a decoction obtained from chips of the heart-wood. Before completing the evaporation, twigs are placed in the concentrated decoction, which is then set aside for a time, when the crystalline substance known as *Kuth* is deposited upon the twigs. This is the practice in Kumaun (see *Atkinson's Himalayan Districts*, 775). In other parts of the country a different practice is followed. The decoction is boiled down until it attains a required consistence, when it is thrown into moulds made of clay or of leaves. It occurs in large irregular cakes, soft internally. This is the Catechu or Cutch of commerce; *Kuth* is entirely consumed in India, being taken by the natives in their *pán*. There are three kinds of Catechu met with in Indian markets:—

The true Catechu or the extract from **A. Catechu**—a dark-coloured kind.

- (a) Kut or kuth, a grey, crystalline substance.
- (b) Irregular cakes, catechu proper.

The produce of **Uncaria Gambier**, generally imported into India from Singapore—pale Catechu or Catechu Pallidum.

- (a) Pressed block Gambier.
- (b) Gambier in cubes.

The produce of the palm **Areca Catechu**—a very dark-coloured form. Catechic acid, *Khairu-sára*, is found in cavities of the wood. (*Dymock*.)

A mixture of Catechu and Myrrh, called *Kathbol*, is very generally given to women after confinement as a tonic and to promote the secretion of milk. (*Dr. Dymock*.)

Mixed with aromatics it is used by Natives in melancholia; powdered and mixed with water it is used in conjunctivitis. Hakims state that it will produce abortion, and that, at the same time, it is useful for women who are barren but are desirous of having offspring? (*Dr. Emerson*.)

Acacia concinna, DC.

Vern.—*Ban-riha*, BENG.; *Saptala*, SANS.; *Aila, rassau*, OUDH; *Shikai, chikai*, DEC.; *Siká, sikákai*, BOM.; *Shiku*, TAM.; *Chikaya, gogu*, TEL.; *Sigé*, KAN.; *Soo-pootnway*, BURM.

An extremely thorny, scandent bush, common throughout India and Burma.

The leaves are eaten, and the pods are detergent and used for washing the hair to kill vermin. The pods of several other species are also used for this purpose.

A. Farnesiana, Willd.

THE CASSIE FLOWERS.

Vern.—*Vilayati kikar, vilayati babál*, HIND.; *Gáya bábla*, BENG.; *Vedda vala*, TAM.; *Yali*, KAN.

A thorny shrub indigenous to America, now cultivated all over India (Gamble). *The Flora of British India* regards it as indigenous to India, "cosmopolitan in the tropics, but often cultivated." It is common enough everywhere in India, growing freely by self-sowing. Its strong-scented, yellow flower-heads perfume the atmosphere very pleasantly. They constitute the Cassie flowers so much used in European perfumery.

The bark is astringent, and is often used as a substitute for *Acacia arabica* bark.

Economic Products of India.

X. ACACIA.

10. *Acacia ferruginea*, DC.

Vern.—*Khour*, NEPAL; *Velvelam*, TAM.; *Ansandra*, TEL.

A large deciduous tree of North Bengal, Central and South India, Guzerat.

The bark possesses astringent properties.

11. *A. leucophloea*, Willd.

Vern.—*Roré*, *raunj*, *karir*, *ringa*, *rinj*, HIND.; *Hevár*, *pándharya*, *babha*, *liche jháda*, BOM.; *Virivayalam*, TAM.; *Tella tumma*, TEL.; *Tanoung*, BURM.

A large tree of the plains of India and Burma.

The bark is used to flavour native spirits, and to increase the quantity of alcohol from the sugar.

12. *A. modesta*, Wall.

Vern.—*Palosa*, ARG.; *Phulahi*, PB.

A thorny, moderate-sized, and deciduous tree on the Sulaiman and Salt Ranges, in the Sub-Himalayan tract between the Indus and the Sutlej, and in the northern part of the Punjab plains. (Gamble.)

The tree yields a gum, which is used in native medicine.

ACALYPAH.

13. *Acalypha indica*, Linn., EUPHORBIACEÆ.

Vern.—*Kupi*, *khokali*, *kúpamanni*, HIND., BOM.; *Potari*, BENG.; *Kuppai-meni*, TAM.; *Kuppai-chettu*, TEL.

A small shrub, growing as a weed in gardens.

The juice of the fresh plant is used as an emetic and expectorant.

An infusion of the dried plant may be used similarly. (Dr. Bidie.)

ACAMPE.

14. *Acampe papillosa*, Lindl., ORCHIDÆ.

Syn.—*SACCOLABIUM PAPILLOSUM*, Lind.

This plant is said by Surgeon U. C. Dutt to be used indiscriminately with the *Vanda Roxburghii*, the roots of both constituting *rásna*, BENG. and SANS. I have not found any confirmation of this statement. *Acampe* is a native of the coast of Burma and South India, and is not met with in Bengal.

Information regarding this plant, if used medicinally, and also specimens, would be most acceptable.

ACER.

15. *Acer pictum*, Thunb., AND *A. cæsiuum*, Wall., SAPINDACEÆ.

Vern.—(Of the former) *Kilpattar*, *trekhan*, *habru*, *kansal* or *hansal*, *hansar*, *jerimu*, *laur*, PB.; *Kancheli*, N. W. P.; *Dhadonjra*, *jerimu*, SIMLA. (Of the latter) *Mandar*, *trekhan*, *tilpattar*, PB.; *Kili*, KU-MAUN.

Large deciduous trees common on the North-West Himalaya from the Indus to Nepal, ascending to altitude 11,000 feet.

The knots on the stems are made into the curious water-cups supposed by some of the hill tribes to have a medicinal influence over the water.

The leaves are said to yield an acrid juice in Kanawár, which blisters the hands; but in most other parts of the Himalaya they are lopped off as fodder.

ACETUM.

Acetum.

VINEGAR.

Vern.—*Khal*, ARAB.; *Sirkah*, PERS.; *Sirka*, HIND.; *Kádi*, TAM.

In India vinegar is made from rice, sugar, various fruits, &c., and is largely used by hakims as a medicinal agent. In the pure state it is escharotic. Applied externally mixed with sweet oil or water, it is largely used for congestive headaches, and in sunstroke. In catarrh it is used like smelling-salts. As a vapor bath it is useful in reducing high temperature of fevers. Is extensively made use of by hakims for the destruction of ectozoa and entozoa. The vapor of vinegar applied to the ear is beneficial in ear-ache and deafness. In dyspepsia with foul breath the natives use it internally mixed with salt, and this same mixture is combined with alum employed as a dentifrice and astringent for bleeding gum. For sore-throat it is used as a gargle mixed with hot water. Diluted solutions are given as cooling draughts and to quench thirst. Highly prized by natives for reducing obesity. The vinegar made from grapes is mixed with salt as a local application to bites of mad dogs. A much-prized remedy for ring-worm. A weak solution is applied to burns and scalds. Combined with sulphur is said to be beneficial in chronic rheumatism and gout. Mixed with sweet oil is applied locally over rheumatic and stiff joints. If used any length of time it is an aphrodisiac. (Dr. Emerson.)

16

ACHILLEA.

Achillea millefolium, Linn., COMPOSITÆ.

Vern.—*Rojamari*, BOM. Stewart says this is one of the plants sold in the bazaars. *Momudrú chopandiya*, KASHMIR; *Búi mudderán*, ARA.

A native of North Asia, Europe and America, and of the Western Himalaya, from Kashmir to Kumaun; altitude 6,000 to 9,000 feet.

The flower-heads are used medicinally as an aromatic stimulant (see *Artemisia vulgaris*). They are also used as a bitter, and in medicated vapour baths for fever.

Dr. Dymock says that *A. Santolina*, Linn. (flowers) are used in the Bombay Presidency, and are known as *biranjdsif*. This plant is apparently imported into Bombay from Persia. It is not a native of Egypt.

17

ACHYRANTHES.

Achyranthes aspera, Linn., AMARANTACEÆ.

Vern.—*Apáng*, BENG.; *Latjira*, *chirchira*, *chirchitta*, HIND.; *Aghsda*, BOM.; *Apamarga*, *égháda apánga*, SANS.; *Uttá-reni*, TEL.; *Nai-yuri*, TAM.; *Kutri*, PB.; *Atkumah*, ARAB.; *Kharo-vashun*, PERS.

A shrub 3 to 4 feet; found all over India, ascending to 3,000 feet. A troublesome weed in gardens throughout the year.

It possesses valuable medicinal properties as a pungent and laxative, and is considered useful in dropsy, piles, boils, eruptions of the skin, &c. The seeds and leaves are considered emetic, and are useful in hydrophobia and snake-bites. (T. N. Mukherji's *Amsterdam Catalogue*.) The dried plant is given to children for colic and also as an astringent.

CONITUM.

In gonorrhœa (*Stewart's Punjab Plants*). Major Madden says that the flowering spikes are regarded as protective against scorpions, the insects being paralysed through the presence of a twig. The ash yields a large quantity of potash, rendering it useful in the arts as well as in medicine. Mixed with orpiment this ash is used externally in the treatment of ulcers, and of warts on the penis and other parts of the body (*U. C. Dutt*). Sesamum oil and the ash (*apamarga taila*) are used in the treatment of disease of the ear, being poured into the meatus. Dr. Bidie says :—“ Various English practitioners agree as to its marked diuretic properties in the form of a decoction.” Dr. Cornish reports favourably, having found it efficacious in the treatment of dropsy. Dr. Shortt reports on its use as an external applicant in the treatment of the bites of insects ; and Dr. Turner calls attention to it as a remedy in snake-bite (*Pharm. Indica*). As an ash, however, there seems no reason to think it possesses any virtues other than those of the simple alkali of our shops.

ACIPENSER.

19 Acipenser huso, Linn., PISCES.

SOURCE OF ISINGLASS.

Vern.—*Machekhi-ka-sirish*, HIND.; *Ghirriyus-samak*, ARAB.; *Siresha-ma-mahi*, PERS.; *Nim-vajaram*, TAM.; *Chepa-vajra mā*, TEL.

A sturgeon inhabiting the Caspian and Black seas.

The swimming bladder or sound is cut up into shreds forming the Isinglass of commerce. This is insoluble in cold water, but when boiled it is completely soluble, and on cooling forms a beautiful jelly. Fifteen grains of Isinglass are sufficient to form a consistence to one ounce of water.

It is demulcent, nutritive. It is also used as a test to distinguish gallic from tannic acid, the latter becoming yellow. As a substitute for isinglass see *Gracilaria lichenoides*.

ACONITUM.

20 Aconitum ferox, Wall., RANUNCULACEÆ.

INDIAN ACONITE.

Vern.—*Bitch bis mitha* (Royle), HIND.; *Kat bish*, BENG., ARAB.; *Atibisha*, *visha*, *vatsandbha*, SANS.; *Bishnag*, PERS.; *Bacha-naba*, BOM.; *Vasha navi*, TAM.

The root is sold in the bazaars under the name of *Bachnab* (BOM.). Temperate Sub-Alpine Himalaya, from Sikkim to Garhwal, altitude 10,000 to 14,000 feet.

The mass of the root sold as Aconite Root is derived from this species, but several others are no doubt used as adulterants. Dr. Bidie says the root of *Methonica superba* is used as an adulterant in Madras.

The root is highly poisonous, and is a very effective medicine in various kinds of diseases. It is regarded as heating and stimulant, and useful in fever, cephalalgia, affections of the throat, dyspepsia and rheumatism. *Bish* appears to have been known to the Hindû doctors from the earliest ages. It is much used as an external application, the root being formed into a paste (*laf*) and spread upon the skin in neuralgia, boils, &c. Internally, it is chiefly used in the treatment of

ACONITE

chronic intermittent fevers (*Dymock*). Europeans use it as a substitute for true aconite. Also largely used by the natives criminally and to poison their arrows.

Said by hakims to be useful in large doses along with stimulants in cases of snake-bite and scorpion stings. Said to be aphrodisiac. Very useful for reducing the temperature in fevers. (*Dr. Emerson*.)

Aconitum heterophyllum, Wall.

Vern.—*Atis ativika, ativisha, HIND.; Ataes, ativisha, SANS.; Vajje-turki, PERS.; Ativadayam, TAM.; Ativasa, TEL.; Sakhihari, chitijari, patris, or patis, bonga, PB.*

This is apparently *Caltha Nirbisa*, *Ham.*, and *Nirbisia Hamiltonii*, *Don*; it is most probably the species of Aconite to which the vernacular *Nirbisia* belongs. Hamilton says it is in Nepal called *Nirbishi* or *Nirbetchi*.

West temperate Himalaya, from Kumaun to Hasora, altitude 8,000 to 13,000 feet.

The root is pleasantly bitter, and is regarded as a valuable, mild antiperiodic, aphrodisiac, and tonic, checking diarrhoea. It may be administered internally with safety owing to the absence of Aconitum or other poisonous properties. It is especially useful in convalescence after fever. As a tonic the dose is 5 to 10 grains, three times daily, and as an antiperiodic from 20 to 30 grains of the powdered root every three or four hours.

The root is said by O'Shaughnessy to be adulterated with that of *Asparagus sarmientosus* (*satamuli*). Two kinds of the root are met with in the market—(a) grey shrivelled tubers larger and longer than (b) white, the daughter off-shoots broken from the former. The latter fetch the best price. They are slightly scarred from the abrasion of rootlets, are generally 2 inches long, with a thin tap-like extremity, often bifurcated. They should break with a short starchy fracture, presenting a white surface (*Dymock*). The *atis* is eaten fresh by the hillmen of Kanawár as a mild tonic.

Dr. Buchanan, who first made known the various forms of aconite, referred them to the genus *Caltha*, but Don early corrected this mistake by forming them into a new genus to which he gave the name *Nirbisia* in honor of the vernacular name *Nirbisi* applied to one of Dr. Buchanan's plants. Wallich subsequently referred these plants to their correct genus, *Aconitum*. Much confusion still exists as to the true *Nirbisi*, for it is by no means clear that it is a pure synonym for *Fadvar*, the generic name for Aconite root. The following plants have been also mentioned as bearing the vernacular name *Nirbisi*. *Curcuma aromatica*, *Salish.*, *C. Zedoaria*, *Roxb.*, which Colebrooke regarded as the *Zedoary* of the ancients from its synonyms being *Zddwár* and *Zadwar*. Dr. Royle states that the roots of *Delphinium denudatum*, *Wall.* (*D. paniciflorum*, *Royle*), bear the name *Nirbisi*. In Dr. Dymock's *Glossary of the Bombay Plants and Drugs*, *Nirbisee* is given as the Deccan name for *Cissampelos Pareira*. Dr. Dymock has, however, drawn my attention to the fact that Dr. Rice, the distinguished Sanskrit scholar, has identified the roots of *Kyllingia monocephala*, *Linn.*, as the *Niroisha* of the Sanskrit writers. This agrees with Roxburgh's remark under *Kyllingia*, where he gives the Bengali of this plant as *Swetagothubi*; remarking that *Nirbishee*, its fragrant aromatic root, is accounted an antidote to poison. Dr. Moodeen Shariff, Khan Bahadur, distinguishes between the words *Nir-bisi* (a synonym for *Fadvar*) and the Sanskrit expression *Nir-Visham* or *Nirvisha*, which expression he says means antidote. He concludes his remarks by urging that great care should be shown in

ACORUS.

prescribing the forms of Aconite under their vernacular names, and he regards *Fadvar* as the only name which can with safety be used.

Given internally it is said to be useful in boils. (Dr. Emerson.)

22 Aconitum luridum, H.f. & T.

23 A. lycptonum, Linn.

24 A. Napellus, Linn.

This is the true MONKS'-HOOD or WOLVES'-BANE ACONITE.

Vern.—*Dudhiabish, kabitish, mitha sahar, tilia cachang, mohri, KASHMIR*
and PUNJAB HIMALAYAN NAMES.

Temperate Alpine Himalaya from 10,000 to 15,000 feet (Sach Pass, Chumba, Watt), ascending in stunted Alpine forms to the highest limit of vegetation in the North-West Provinces. Distrib.—Temperate and Arctic Europe, Asia and America.

The root of this plant is generally said to be the most poisonous of the genus, yielding the true aconite of our chemists' shops, from which *Aconitia*, the most virulent of poisons, is obtained. Ewers, however, gives *A. ferox* as the most poisonous. It is remarkable that some members of this genus and even varieties of this species should not possess the alkaloid at all, and may therefore be eaten with impunity. The *Flora of British India* describes two varieties of this species, namely, *multifidum, sp. Royle, and rotundifolium, sp. Kar*, as eaten by the Bhutias. The vernacular names, *Bikhma, bishma, Hind., and Wakhma, Bom.*, are applied to a wholesome form of the aconite root, which may probably be one of the above varieties.

The root of *A. Napellus, Linn.*, is officinal in the British Pharmacopoeia, and does not, therefore, require to be further dwelt upon in this list.

The fresh leaves are also used in Europe in the preparation of the Extract, which is regarded as less certain in its action than the preparations from the root.

25 A. palmatum, Don.

Vern.—The three preceding species, together with *A. ferox, Wall.*, are probably known indiscriminately as *Bish, bikh, mitha, titia, mitha suher, bishnak, ati, singya, mishri-bish, kala mohra, singya jar, &c., &c.*

Small, elegant, herbaceous plants in the Alpine regions of the Himalaya from Kashmir to Sikkim, altitude 8,000 to 14,000 feet, *A. luridum, H.f. & T.*, being chiefly confined to Sikkim.

The roots are all poisonous, and no doubt are used for the same purpose, all mixed together as met with in the bazars.

ACORUS.

26 Acorus Calamus, Linn., AROIDEÆ.

THE SWEET-FLAG.

Vern.—*Bach, ghorbach, HIND.; Vekhanda, gandhikovaja, BOM.; Vacha, vekhanda, SANS.; Vai, ARAB.; Agre-turki, PERS.; Bach, BENG.; Bari boj, PB.; Vashambu, TAM.; Vadaja, TEL.; Linhe, BURM.*

A semi-aquatic perennial, with indefinitely branched rhizomes, a native of Europe (?) and North America; cultivated in damp, marshy places in India and Burma, altitude 3,000 to 6,000 feet; exceedingly common in Manipur and the Naga hills, often on the cultivated fields, spreading apparently from the division walls.

ACTINIOPTERIS.

The aromatic rhizome or root-stock is considered emetic in large doses, and stomachic and carminative in smaller doses. (*U. C. Dutt.*) It is a simple useful remedy for flatulence, colic, or dyspepsia, and a pleasant adjunct to tonic, or purgative medicines. It is also used in remittent fevers andague by the native doctors, and is held in high esteem as an insecticide, especially for fleas. In Voight's *Hortus Suburbanus Calcuttensis* occurs the following (taken from Thomson's *Mat. Med.*): "The root has been employed in medicine since the time of Hippocrates. By the moderns it is successfully used in intermittent fevers, even after bark has failed, and it is certainly a very useful addition to Cinchona. It is also a useful adjunct to bitter and stomachic infusions." It is the only plant which can be said to be used by the Nagas as medicine, and it is also much valued by the Manipuris, especially in the treatment of coughs or sore-throats. The root is sold by chemists in England, and in Scotland is regarded useful to clear the throat before taking part in any public performance. For this purpose a small piece is chewed for a few minutes.

ACTŒA.

Actaea spicata, Linn., RANUNCULACEÆ.

THE BANEERRY.

Vern.—?

Temperate Himalaya, from Bhutan to Hazara; Europe, North Asia, North America.

The berries are black and very poisonous.

Stewart remarks regarding this plant: "I have found no trace of its being used or dreaded" by the hill people on the Punjab Himalaya. It would be interesting to know whether this is correct; for it is curious that so useful a plant should have escaped the notice of the natives of India. Canadian doctors administer the root in snake-bite; and it is said to be attended with much success in the treatment of nervous diseases, rheumatic fever, chorea and lumbago. The berries were formerly used internally for asthma and scrofula, and externally for skin complaints. Baneberry Root is largely exported into Europe and used to adulterate the root of *Helleborus niger*, but the former may readily be distinguished on section by the presence of radiating medullary bands, while *Hellebore* has an entire or undivided substance. An infusion of *Actaea* root is changed into black on adding a solution of persulphate of iron acting upon the tannic acid of the *Actaea*. No such change is effected upon an infusion of *Hellebore*.

See *Cimicifuga* and *Helleborus*.

ACTINOPTERIS.*

Actiniopteris radiata, Linn., FILICES.Vern.—*Mor-pankhi, mor-pach*, N. W. P.; *Māpurśika*, Bom.

Common throughout India on the lower hills of the Peninsula; very characteristic of the Nilgiris up to altitude 2,000 feet.

This fern is used as an anthelmintic (*Atkinson*).

Very common on old walls in the Deccan, used as a styptic.
(*Dymock*.)

27

28*

ADHATO-
DA.

ADANSQNIA.

29. *Adansonia digitata*, Linn., MALVACEÆ.

THE BAOBAB OR MONKEY BREAD TREE OF AFRICA.

Vern.—*Gorakh amli, chora dimali*, HIND.; *Kalp brish, Ajmre*; *Hathikhatyan*, DEC.; *Gorakha chinch, churi chints*, BOM.; *Anai-puliya-ray*, TAM.; *Hujed*, ARAB.

Cultivated in some parts of India to a small extent, but deserves to be extended; originally introduced by Arab traders, who call it *Habbaboo*. It is chiefly cultivated in Bombay, being plentiful on the coast. It is also being experimentally cultivated in the Sunderbunds. There is a good specimen in the Barrackpore Park, and a small one on the Calcutta maidan, a little beyond the cathedral. Has mucilaginous pulp, having a pleasant, cool, subacid taste like cream of tartar. Used in Africa in dysentery. Leaves dried and powdered constitute 'Lalo' of Africans, used to check excessive perspiration. The bark is antiperiodic. The pulp is used in Bombay with butter-milk in diarrhoea and dysentery.

ADENANTHERA.

Adenanthera pavonina, Linn., LEGUMINOSÆ.

Sometimes called RED SANDAL-WOOD.

Vern.—*Rakta-chandan* or *rakta-kambal, ranjan*, BENG.; *Vala, thorali gunja*, BOM.; *Ani gundumani*, TAM.; *Gung*, MAGH.; *Bandi-guruvinsa*, TEL.; *Ywaygyee*, BURM.

A deciduous tree of Bengal, South India, Burma, and the Andaman Islands.

A dye is extracted from the wood, often used by the Hindus to colour the forehead. (*Roxburgh*.)

The bright, scarlet seeds are used as weights, each being about 4 grains; they are also strung and made into necklaces. Powdered and beaten up with borax, they give a good cement. The powder is said to be a useful external application, hastening suppuration. A decoction is made from the leaves in South India, and given as a remedy for chronic rheumatism and gout. If used for any length of time it is said to be anaphrodisiac. This decoction is said to be useful in haemorrhage from the bowels and haematuria.

ADHATODA.

30. *Adhatoda Vasica*, Nees, ACANTHACEÆ.

Vern.—*Arusha, adulasid, adulaso*, HIND., BOM.; *Bakas, vásaka*, BENG.; *Bhekkar, basáti, tora buffa, bashang arús*, HIMALAYAN NAMES; *Bansa*, PERS.; *Arus, rásaka*, SANS.; *Adhadode*, TAM.; *Adasara*, TEL.

A small shrub common in the Sub-Himalayan tract from Nepal westward, throughout the plains of India up to 4,000 feet. A small, much-branched, gregarious bush in the Naga hills, grown as a hedge plant to cover the passages leading to the villages.

The leaves and the root of this plant are considered a very efficacious remedy for all sorts of coughs, being administered along with ginger. "The medicine was considered so serviceable in phthisis that it was said no man suffering from this disease need despair as long as the *vásaka* plant exists." (*U. C. Dutt*) It is often administered along with honey, the fresh juice or a decoction with pepper being made into a cough mixture. The *Pharm. Indica* states that strong testimony has

been given in favor of its remedial properties, drawn from personal experience, in the treatment of chronic bronchitis, asthma, &c., when not attended with febrile action. The flowers and the fruit are bitter, aromatic and antispasmodic. The fresh flowers are bound over the eyes in cases of ophthalmia. "The flowers, leaves, and root, but especially the first, are supposed to possess antispasmodic qualities." "They are bitterish and sub-aromatic, and are 'administered' in infusion and electuary." (Ainslie.) The leaves are used as a cattle medicine, and the flowers for ophthalmia. (Gamble.)

The stems are used in the Naga hills for divining and to foretell omens. The twig is held in the left hand and rapidly cut into thin slices, an incantation being repeated all the while, the prognostications being based upon the number of times the heart-shaped, dark, central wood turns towards or away from the operator. The idea of medicine seems not to have occurred to the Naga, and he does not appear to attribute to this plant any virtues other than those described.

ADIANTUM.

Adiantum Capillus-Veneris, Linn., FILICES.

THE MAIDEN'S HAIR FERN.

Vern.—*Dumtali*, KASHMIR; *Kirwatsei*, *bisfáij*, TRANS-INDUS; *Parsha-warsha*, SALT RANGE (Stewart); *Mubáraka*, KUMAUN (Atkinson); *Pursha*, *hansraj*, *mubarka*, HIND.; *Shaur-ut-jin*, ARAB. (Murray's Drugs of Sind).

A graceful, delicate fern of damp places in rocks, walls or wells, found chiefly in the Western Himalaya, ascending to altitude 6,000 feet, but found far to the east in the valley of Manipur, extending to the mountains of the Burma-Manipur frontier.

Smith's Economic Dictionary (1882) states that this is the plant used in the preparation of the so-called *Siroop de capillaire* of Europe. This syrup is largely used in Italy and Greece in the treatment of chest complaints. *A. pedatum*, Linn., is also said to be largely used for this purpose, being exported from Canada. Dr. Dymock draws my attention to the fact that of the species of *Adiantum*, *A. pedatum* is the French officinal plant and that *A. Capillus-Veneris* is allowed as a substitute. It is a common North-West Himalayan plant. *Siroop de capillaire* is imported into India, but might be prepared in the country to an unlimited extent, as both this and the next species are exceedingly common plants, especially *A. caudatum*.

In the Punjab the leaves along with pepper are administered as a febrifuge, and in South India, when prepared with honey, they are used in catarrhal affections.

It is probable that the officinal root sold in the Punjab bazars under the name of *Bisfáij* is a species of *Polypodium vulgare*, which see.

A. caudatum, Linn.

Vern.—*Adhsarita-ka-jari*, *kanghai*, *gunkiri*, PB.; *Mayára shikhada*, SANS.; *Mylekondai*, TAM.

An exceedingly common plant in Bengal, covering nearly every old wall in shady places, each frond rooting at the tip and thus forming a new plant.

Ainslie says that in the island of Bourbon the leaves of this species, as also of the preceding, are used in the preparation of *Siroop de capillaire*.

See remarks under the preceding species. Further information, and specimens of the plants used medicinally, of the prepared drugs and of the syrup, would be most acceptable.

34

Adiantum flabellulatum, Linn.

Is very common in some parts of India. I found it plentiful in the oak and mixed forests of Manipur; at Chuttuck was told by a Manipuri sepoy that the root was used medicinally.

35

A. lunulatum, Burm.

Vern.—*Kali-jhant, BENG.; Mubraka, rájahansa or hansraja, kansasraja, BOM.*

This is unquestionably the commonest and most widely spread *Adiantum* in India. Every hedgerow and old brick wall is covered with it in Bengal, also the rocks of the lower hills; in damp glades often becoming 2 feet in length and rooting as in *A. caudatum, Linn.*

While this and the preceding species are plentiful everywhere throughout Bengal, I cannot discover that they are ever collected for medicinal purposes, and it seems probable that the fern root (*hansraj*) to be had in Calcutta native shops is imported and not procured locally.

This and the preceding and probably also several other species form ingredients in certain dye recipes. Information as to their use in Bengal and more definite information from Madras would be useful.

A. venustum, Don.

Vern.—*Par-i-siya-washan, hansráj, HIND.,* in the BAZARS. The *Makhsas* gives *Kali-jhant* as the Hindi name of this plant. In Bombay it is chiefly known as *mubaraka*. The plant is generally known as *ghás* in the Punjab Himalaya.

A fern found in the Himalayas up to 8,000 feet in altitude, and chiefly in the North-Western Himalayas extending to Afghanistan.

It possesses astringent and aromatic properties, is emetic in large doses, and is a tonic and a febrifuge and expectorant. This remark is given by Mr. Baden-Powell in his *Punjab Products* under *A. caudatum, A. venustum* and other species, and it is probable that if all the preceding are not actually used indiscriminately or as substitutes for each other in different districts, they might easily be so, since they seem all to possess the same properties. Stewart says that "in Chumba it is pounded and applied to bruises, &c., and the plant appears to supply in the Punjab most of the officinal *hansráj*, which is administered as an anodyne in bronchitis, and is considered diuretic and emmenagogue."

Native writers do not distinguish the various species of *Adiantum*. (Dr. Dymock.)

A vapor bath medicated by a decoction from this plant is regarded useful in fever. (Dr. Emerson.)

ÆGLE.

Egle Marmelos, Correa, RUTACEÆ.

THE BAEI FRUIT.

Vern.—*Bel, HIND. and BENG.; Bela, bila, bilva, BOM.; Sriphal, SANS.—the Bilva, Mabura or Matura of the ancients; Saraf jal-Hindí, ARAB.; Shul, PERS.; Vilva, TAM.; Maredu, TEL.; Okshit, BURM.* Roxburgh says a small variety is called *Shripulka* in Bengal.

A small tree of the Sub-Himalayan forests from the Jhelam eastward, Central and South India, Burma.

"The fruit is nutritious, warm, cathartic; in taste delicious, in fragrance exquisite; its aperient and detergative quality, and its efficiency in removing habitual costiveness, have been proved by constant experience.

The mucus of the seed is for some purposes a very good cement." "The fruit is called *Shriphula*, because it sprang, say the Indian poets, from the milk of *Shri*, the goddess of abundance, who bestowed it on mankind at the request of *Jowarra*, whence he alone wears a chaplet of *Bilva* flowers; to him only the Hindus offer them; and when they see any of them fallen on the ground, they take them up with reverence and carry them to his temple." (*Roxb. in As. Res.*, Vol. II, 340, also quoted in *Flora Indica*.)

This is one of the most sacred of Indian trees, cultivated near temples and dedicated to *Siva*, whose worship cannot be completed without its leaves. It is incumbent upon all Hindus to cultivate and cherish this tree, and it is sacrilege to cut it down. (U. C. Dutt.)

In medicine it is used in various ways—

- (a) The UNRIPE FRUIT is cut up and sun-dried, and in this form is sold in the bazars in dried whole or broken slices. It is regarded as astringent, digestive and stomachic, and is prescribed in diarrhoea and dysentery, often proving effectual in chronic cases after all other medicines have failed. It seems especially useful in chronic diarrhoea; a simple change of the hours of meals and an alteration in the ordinary diet, combined with bael fruit, will almost universally succeed.
- (b) The RIPE FRUIT is sweet, aromatic and cooling, and made into a morning sherbet cooled with ice is pleasantly laxative and a good simple cure for dyspepsia. The dried ripe pulp is astringent and used in dysentery.
- (c) The ROOT BARK is sometimes made into a decoction and used in the cure of intermittent fever. It constitutes an ingredient in the *dasamul* or ten roots.
- (d) The LEAVES are made into poultice, used in the treatment of ophthalmia, and the fresh juice diluted is praised in catarrhs and feverishness.
- (e) The ASTRINGENT RIND of the ripe fruit is used in dyeing and tanning.

If used for any length of time it is apt to produce haemorrhoids, but this is avoided by using sugar. (Dr. Emerson.)

AERUA.

Aerua Bovii, Webb., AMARANTACEÆ.

38

A. javanica, Juss.

39

Syn.—*ACHYRANTHES INCANA*, Roxb.

A. lanata, Juss.

40

Syn.—*ACHYRANTHES LANATA*, Roxb.

Vern.—*Chaya*, BENG.; *Bdi*, *jari*, SIND; *Bai-kullan*, PE.; *Kul-ke-jar*, DEC.; *Asmet*, *sphiro*, *sassai*, TRANS-INDUS.

Small herbaceous weeds, common everywhere in the plains, ascending to altitude 3,000 feet, from the Indus eastward to Bengal and Burma, and southward to the Madras Presidency. The last-mentioned species is perhaps the best known; to it the above native names properly belong.

In Sind Stewart says the woolly fruit is used for stuffing pillows, and rats are fond of the seed. The stems are often covered with woody galls. The flowering tops are officinal, and the roots are used in the treatment of headache, and by the natives of the Malabar Coast as demulcent. (Graham, Murray, &c.)

AESCULUS.

41. *Aesculus indica*, Colebr., SAPINDACEÆ.

HIMALAYAN HORSE CHESTNUT.

Vern.—*Bardhor, gugu, kanor, pankar, HIND.; Hâne, hanâdâm, KASHMIR Torjaga, TRANS-INDUS.*

A large deciduous tree of 60 to 70 feet in height, met with in West Himalaya between 4,000 to 10,000 feet from the Indus to Nepal.

Fruit is used for horses in colic. It is also applied externally in rheumatism.

- Agallocha. See *Aquilaria Agallocha*, Roxb., THYMELACEÆ.

THE EAGLE-WOOD; ALOES-WOOD; CALAMBAC-WOOD; AGILA; AKYAV

AGANOSMA.

42. *Aganosma calycina*, A. DC., APOCYNACEÆ.

Syn.—*ECHITES CARYOPHYLLATA*, Roxb.

Vern.—*Mâlati, HIND., BENG., and SANS.* Voight gives *Gandhomda*. as the Bengali name.

43. *A. caryophyllata*, G. Don.

Syn.—*ECHITES CARYOPHYLLATA*, Wall., non Roxb.

Vern.—?

Lower Bengal (Monghyr, Hamilton); common on rocks at Risikund, (Wallich), Deccan Peninsula (Heyne), &c. (Hook. Fl. Br. Ind. iii. 664.)

The only mention I find of *Aganosma* being medicinal is in U. C. Dutt's *Materia Medica*, where it occurs in his Glossary of Indian medicinal plants mentioned by Sanskrit writers. He does not give its supposed properties, but states that the vernacular name for *A. caryophyllata*, G. Don, is *mâlati*, whereas all the older writers give that as the vernacular name of *A. calycina*, DC. It seems, therefore, that the plant has not been carefully identified by the author of the *Hindu Materia Medica*.

According to Sanskrit authors this plant is heating and tonic; useful in diseases caused by disordered bile and blood. (U. C. Dutt.)

- Agar-agar or Ceylon Moss. See *Gracilaria lichenoides*, Greville. LICHENES.

AGARICUS.

44. *Agaricus campestris*, Linn., FUNGI.

THE MUSHROOM.

Vern.—*Alombe, khumba, BOM.; Mânskhel, KASHMIR; Moksha, CHAMBA Khâmbâh, khâmbâr, chattrî, AFG. BAZAR NAMES. Kâmbh samarog. (Stewart), Herar, Poisonous forms.*

There are doubtless several species, used indiscriminately, but as these have not as yet been accurately determined by botanists, it is preferable to refer to all under the common name which in English they would doubtless receive, *viz.*, The Mushroom.

The true Mushroom is abundant in fields in many parts of India especially in the Punjab. It is universally eaten by the natives, fresh.

or dried in the sun. It is apparently a very abundant plant in Afghanistan. Aitchison mentions *A. Mitto, Pers.*, as met with in Kurum district; he also mentions *Morchella esculenta*, *Helvella crispa*, and *Hydnellum coraloides* as eaten by the Afghans, the last-mentioned being collected in August and sun-dried.

The small dried mushrooms are officinal in the Punjab and are sold as "Mokhai," being regarded as alterative.

varicus igniarius and *A. albus* are referred to by Dr. Stewart in his *Punjab Plants*.

Vern.—*Bulgar jangli, KASHMIR; Bati-ha-mochka, CHENAB; Klein, PB.*
BAZAR NAME, *Gharikán*.

Stewart remarks, "This appears to come from the west, about 15 seers being annually imported via Peshawur." It is officinal, being given for internal disorders. The tinder or ashes are also said by Honigberger to be used to stop haemorrhage.

Specimens, and further information regarding this and all other Fungi used medicinally, should be procured.

officinalis.

Vern.—*Gharikán, or BOMA.*

Is largely imported from the Red Sea ports, and much used by imams. (Dymock.)

ostreatus, Jacq.

Vern.—*Phanasa-alombe, or vulgarly phansambu.*

Is common on old Jack trees in Bombay, and is used as a styptic. (r. Dymock.)

ithotes Chirata, D. Don. See Swertia Chirata, Ham., GENTIANACEÆ.

THE CHIRETTA.

AGAVE.

Agave americana, Linn., AMARYLLIDÆ.

THE CENTURY PLANT, THE AMERICAN ALOE, CARATA, Eng.; PITA MAGUEY, Span.

Vern.—*Rakas patta, banskeora, barakanwar, kantala, HIND.; Tungli or Bilati-ananash, vulgarly (anaros) bilati-pat, koyan, murga, BENG.; Yangli-kunvara, parkanda, BOM.; Rakas-patta, DEC.; Anai-k-kat rasai, pithakalabuntha, TAM.; Rakashi-matalu, TEL.; Wilyatu kaitalu, PB.*

Originally a native of America, gone wild in many parts of India.

The roots are diuretic and antisyphilitic, and are said to find their way to Europe mixed with Sarsaparilla.

The expressed juice of the leaves is administered by American doctors as a resolvent and alterative, especially in syphilis.

The large, moist, fleshy leaves are sometimes used as a poultice.

AGLAIA.

Aglaia Roxburghiana, Miq., MELIACEÆ.

Vern.—*Priyangu, BENG., HIND. and SANS.*

Western Peninsula; from the Concan and Midnapore southwards;

AILAN-
THUS.

Ceylon, ascending to 6,000 feet; Singapore, *Distrib.*—Java, Sumatra, and other Malay Islands.

Is said by Sanskrit writers to be cooling and useful in burning of the body and painful micturition. The fruits are described as sweet, astringent and tonic. (*G. C. Dutt.*)

AGRIMONIA.

50 **Agrimonia Eupatorium, Linn., ROSACEÆ.**

Vern.—

An herb of the temperate regions, frequenting hedgerows and thickets. It is common in England, America, and India; in the latter all along the Himalaya from Kashmir to Sikkim, altitude 3,000 to 10,000 feet, and to the Khásia, Naga, and Mishmi hills.

From the remotest times **Agrimony** has enjoyed a high reputation amongst the herbalists of Europe; it is strange that it should be apparently quite unknown to the native doctors of India. The root is a powerful astringent, a useful tonic, and a mild febrifuge. The whole plant also yields a dye, which seems to be unknown to the hill-people of India.

A. Hemp. See *Eupatorium cannabinum, Linn., COMPOSITÆ.*

AILANTHUS.

51 **Ailanthus excelsa, Roxb., SIMARUBÆ.**

Vern.—*Maha rukha, mahánimba, límbado, HIND.; MAHR.; Aráa, MEYWAR; Peru, peo, TAM.; Pedu, pey, pedda, TEL.; Gormi-kawat, URIYA.*

A tree about 60 to 80 feet in height, probably introduced into India, common in North-Western Provinces, Behar, Western Peninsula; common in the Carnatic.

The bark is aromatic and used for dyspeptic complaints; it is also regarded as tonic and febrifuge in cases of debility. It is probable that this and the next species are used for one and the other.

52 **A. malabarica, DC.**

Vern.—*Peru, TAM.; Muddo-dhúpa, bágá-dhúpa, BOM.; Kambalu, walbil-ing, CINGH.; Poddá-mánu or Peru maram, TEL.*

A large deciduous tree of the Western Gháts, rare in Pegu. Often planted in South India for ornament.

The tree yields a gum-resin, called *muti-pal*, first discovered by Dr. Buchanan. It is used medicinally, especially in dysentery. The fruit is considered useful in cases of ophthalmia. (*Aitchison, Kuram Valley Plants in Four. Linn. Soc.*) The bark is bitter and given in the treatment of dyspepsia. Wight describes it as rough and very thick, studded with bright garnet-looking grains, apparently of a resinous nature, which do not dissolve either in spirit or water.

Ajowan. See *Carum copticum, Benih., UMBELLIFERÆ.*

AJUGA.

Ajuga bracteosa, Wall., LABIATÆ.

Vern.—*Kauri bötti*, JHEŁAM; *Karká, nilkantiki*, SUTLEJ; *Khurbanri*, TRANS-INDUS. The bazar names are *Janadam*, *mukund babri*, *nilkantti*. Mr. Baden-Powell gives *jan-i-adam* as the vernacular of *Ajuga reptans*, a European species, and Stewart further gives that name to *Salvia lanata*.

A small herbaceous plant, met with on the Himalaya, altitude 2,000 to 3,000 feet, extending from Afghanistan to Nepal.

Ján-i-adam is described as a bitter astringent, nearly inodorous; sometimes substituted for cinchona in the treatment of fevers (Baden-Powell).

Mukand babri.—On the Salt Range it is used to kill lice, and is regarded as depurative (Stewart); an aromatic tonic, specially useful inague (Baden-Powell).

There appears to be some confusion as to the identification of the medicinal products sold in the bazars of the Punjab and North-West Provinces under the names of *Ján-i-adam* and *Mukand babri*. Specimens and further information should therefore be obtained.

ALANGIUM.

Alangium Lamarckii, Thwaites, CORNACEÆ.

Syn.—*A. HEXAPETALUM*, Lamk. (Roxb. Fl. Ind.); *A. DECAPETALUM*, Lamk.

Vern.—*Akola*, *thatla ankál*, HIND.; DEC.; *Ankola*, *kald-akolá*, BOM.; *Aka-kanta*, *baghankara*, BENG.; *Alangi*, *ashinji*, TAM.; *Amkolam-chettu*, TEL.; *Ankola*, GOND; *Ankota*, SANS.; *Dhalákura*, BENG. (in U. C. Dutt's Mat. Med.)

A deciduous shrub, or small tree, of the Sub-Himalayan tract from the Ganges eastward to Oudh, Bengal, Central and South India.

The root-bark is used in native medicine, being regarded as anthelmintic and purgative. It is mentioned by Sanskrit writers as the *Anko-ta*, and has a reputation in leprosy. Dr. Moodeen Shariff in his most valuable *Supplement to the Pharmacopœia Indica* says: "It has proved itself an efficient and safe emetic in doses of fifty grains; in smaller doses it is nauseant and febrifuge. The bark is very bitter, and its repute in skin diseases is not without foundation."

The root is described by Sanskrit writers as heating, pungent and acrid. It is laxative and useful in worms, colic, inflammations and poisonous bites. The fruit is said to be cooling, tonic, nutritive, useful in burning of the body, consumption, and in haemorrhages. (U. C. Dutt.)

ALBIZZIA.

Albizzia amara, Boivin, LEGUMINOSÆ.

The seeds are astringent, given in piles, diarrhoea, gonorrhœa, &c.; the oil extracted from them is said to cure white leprosy. The flowers are considered by the natives a cooling medicine, and are externally applied to boils, eruptions, and swellings. The leaves are regarded as useful in ophthalmia, and afford good fodder for cattle. (Baden-Powell's Punjab Prod. s. v. *Acacia speciosa*, page 345.)

Described by Sanskrit writers as cooling and useful in erysipelas, eye disease, inflammation and ulcers. (U. C. Dutt.)

ALBUMEN.

56 *Albizzia Julibrissin, Durass.*

Syn.—MIMOSA KALKORA, Roxb., A. JULIBRISSEN, Willd.

A middle-sized tree, common on the Himalaya from Hazara to Sikkim, ascending to 7,000 feet in altitude.

Used like the preceding species. Stewart says the word *Julibrissin* is derived from *Gul abresham*. In Egypt "J" is pronounced as "G".

57 *A. Lebbek,*

Syn.—ACACIA LEBBEK, Willd.

Vern.—Siris, sirin, makirski, lasrin, kalsis, tantia, HIND.; Sirisha, BENG.; Sirasa, shirrus, swri, SIND; Vaghe, kat vaghe, TAM.; Dirasan, TEL.; Kokoh, BURM.; Beymada, AND.

A large deciduous tree of the Sub-Himalayan tract from the Indus eastward, ascending to 5,000 feet; Bengal, Burma, Central and South India.

The seeds are officinal, forming part of an *anjan* used for ophthalmic diseases (Stewart). The oil extracted from them is considered useful in leprosy. The bark is applied to injuries to the eye (Madden).

58 *A. odoratissima, Benth.*

Syn.—ACACIA ODORATISSIMA, Willd.

Vern.—Siris, bhandir, bersa, bansa, HIND.; Jati-koroi, Ass.; Lasrin, kar-ambra, polach, PB.; Siras, BOM.; Kal-thuringi, kar vaghe, bilwara, TAM.; Shinduga, TEL.; Thitmagy, BURM.

A large deciduous tree of the Sub-Himalayan tract from the Indus eastward, ascending to 3,000 feet; Bengal, Burma, Central and South India.

The bark, applied externally, is considered efficacious in leprosy and in inveterate ulcers. The tree also produces a gum, and the leaves are used for fodder.

ALBUMEN.

59 *Albumen.*

—
A term which in chemistry means a compound containing nitrogen in addition to the carbon, hydrogen and oxygen of the starches. It is readily known by its coagulating with heat. The white of an egg is a good example of this compound in animal matter, but it is also largely present in vegetable substances, and especially so in the sap of plants. In botanical science, however, the term "An Albumen" has come to have a widely different meaning. It is a layer of albuminous matter (albumen, fibrine and casein, together with starches) surrounding the embryo and within the seed coats. In the pea this albuminous matter is stored within the embryo itself, filling its seed-leaves (the halves of the pea), and such a seed is therefore exalbumenous in botanical terminology. In the castor-oil seed, on the other hand, the albuminous matter forms a distinct and complete layer around the embryo (or infant plant), and such is therefore regarded as an albuminous seed. An exalbumenous seed does not imply the absence of albuminous matter (chemically), but the absence of a peculiar layer of such matter around the infant plant and within the seed coats.

Albumen is described in the *Indian Pharmacopœia* as emollient, de-tumidant and nutritive. It acts as an antidote to the soluble salts of Copper and zinc, and corrosive sublimate or creosote.

ALHAGI.

Alcohol.**60**

The product of vinous fermentation. Through the agency of a Fungus—Yeast—sweet liquids have their chemical constituents rearranged thus. They are then said to be fermented, and the spirit or pure alcohol formed may be separated from admixture by distillation.

It is chiefly used for chemical purposes and in the preparation of Tinctures; Rectified Spirits contain 16 per cent. of water: from this Proof Spirit is prepared by mixing 3 pints of distilled water with 5 pints of Rectified Spirit. Rectified spirit is a powerful diffusible stimulant useful as an evaporating lotion but not administered internally *per se*.

ALEURITES.**Aleurites moluccana, Willd., EUPHORBIACEÆ.****61**

THE BELGAUM OR INDIAN WALNUT.

Syn.—*A. TRILOBA*, Forst.Vern.—*Akrot*, BENG.; HIND.; *Kharifehindi*, ARAB.; *Girdagane-hindi*, PERS.; *Ganjli*, eranda, jelapa, jangli akhrota, japhala, BOM.

A handsome tree, introduced from the Malay Archipelago, and now found in cultivation or run wild in many parts of South India.

The kernels "yield on expression a large proportion of a fixed oil, which has been pronounced by the Madras Drug Committee (1855, p. 428) to be superior to linseed oil for purposes connected with arts." Medicinally, a dose of about two ounces has been found to act in from three to six hours as a mild purgative, its action being unattended with either nausea, colic or other ill effects. It approaches castor oil, and has been found quite as certain in its action. (*Pharmacop. Indica.*)

ALHAGI.**Alhagi maurorum, Desv., LEGUMINOSÆ.****62**

THE CAMEL'S THORN; THE HEBREW MANNA PLANT.

Syn.—*HEDYSARUM ALHAGI*, Willd., in Roxb. Fl. Ind. Ed. C.B.C. p. 574.Vern.—*Juwásá*, or *junoásá*, or *yavásá*, or *yavásá*, HIND., BOM.; *Dulalabá*, BENG.; *Duralabha*, *girikarnika*, *yavásá*, SANS.; *Shutarkhor*, *khareshutar*, PERS.; *Alhajú*, *haj*, *aágúl*, *shonkuljaimal*, ARAB.

A widely-spread shrub of the Ganges Valley and the arid and northern zones; a native of the deserts of Egypt, Arabia, Asia Minor, Beluchistan, and Central India. Very common near Delhi, and used for making tatties, and as a camel fodder.

The herb is cooling and bitter and has antibilious properties. The thorny twigs are sold as the medicinal product, and the preparation generally used, is the extract by evaporation of a decoction of these. This is called *yávasarkará*. It is sweetish bitter, and is a favourite remedy for the coughs of children. The Sanskrit writers do not appear to refer to the manna or sweet sugary excretion obtained naturally from the plant by shaking its twigs over a cloth. This is chiefly collected in Khorasan, Kurdistan and Hamadan, and imported into Bombay from November to January. It is called *Taranjabín*. It occurs in small round unequal grains, of the size of coriander seeds, caking together and forming an opaque mass. Royle states that the Indian plant does not yield the manna, and that the *Taranjabín* of the bazars is imported into India from Persia and Bokhara (*O'Shaughnessy*).

ALLAMANDA.

Specimens from Bombay and the Punjab required, both of the plant and the manna, and further information regarding the latter, especially as to whether it is actually collected in India or not.

ALKALINE ASHES.

63 Alkaline ashes.

These are obtained by burning plants, of which the following are those most commonly used by the natives for this purpose :—

- Abrus precatorius*—Gunga, Kunch.
- Achyranthes aspera*—Apamárga, Apáng.
- Adhatoda Vasica*—Vásaka.
- Aistonia scholaris*—Saptaparni, Chhátin.
- Amaranthus spinosus*.
- Anthrocneumum indicum*—*Mog.*
- Bamboo ash.
- Butea frondosa*—Palása.
- Cesalpinia Bonducella*—Pritika.
- Caroxylon fustidum*—*Mog.*
Griffithii—*Mog.*
- Calotropis gigantea*—Arká, Akanda.
- Cassia Fistula*—Aragvadha, Sondál.
- Cedrus Deodara*—*Davadáru.*
- Euphorbia nerifolia*—Snuhi.
- Euphorbia Tirucalli*—Lankasij.
- Erythrina indica*—Paribhadra, Pálitá-mádár.
- Gmelina arborea*—Gambhari.
- Holarrhena antidyseenterica*—Kutja, kurchi.
- Luffa aegyptiaca*—Koshátaki.
- Musa sapientum*—Kadali, Kela.
- Nerium odorum*—Karavira.
- Penicillaria spicata*—Bajira.
- Plumbago zeylanica*—Chitraka.
- Pongamia glabra*—Karanja.
- Salicornia brachiata*—*Roxb.*
- Shorea robusta*—Asvakarna, Sál.
- Stereospermum suaveolens*—Pátalá, áral.
- Succa indica*—*Mog.*
nudiflora—*Mog.*
- Symplocos racemosa*—Lodhra, lodh.
- Vallaris dichotoma*—Alspotta, happur-mali.
- Vitex Negundo*—*Linn.*

ALLAMANDA.

64 *Allamanda cathartica*, Linn., APOCYNACEÆ.

Vern.—*Jaharisonattakká, pinvald kanhera, pili-kanera, Bom.*

A large yellow-flowered shrub from America, much cultivated in India and run wild in the tidal back-waters of the western coast. (*Beddoe*).

Dr. Dymock remarks: “though not used in India, it has a medicinal reputation, the leaves being considered a valuable cathartic in moderate doses.” Ainslie (*Mat. Ind.*, II, 9) says that the Dutch consider an infusion of the leaves as a valuable cathartic.

ALLIUM.

Allium Cepa, Linn., LILIACEÆ.

ONIONS, Eng.; OGNON, Fr.; ZWIEBEL, Ger.

Vern.—*Piyâs*, HIND.; *Piyâj*, BENG.; *Palandu*, SANS.; *Basi*, ARAB.;
Piyas, PERS.; *Kanda*, *piyaj*, BOM.; *Vengayam*, TAM.; *Vulli-gaddulu*,
TEL.; *Vengayam*, KAN.; *Ky-ot-thowon-ni*, BURM.

Cultivated all over India.

The bulbs contain an acrid volatile oil, which acts as a stimulant, diuretic, and expectorant. Onions are occasionally used in fever, dropsy and catarrh, and chronic bronchitis; in colic and scurvy. Externally as rubefacients, and, when roasted, as a poultice. Considered by natives hot and pungent, useful in flatulence. Said to prevent the approach of snakes and venomous reptiles. (*Baden-Powell*.)

They are also described as aphrodisiac. Eaten raw they are emmenagogue. The juice rubbed on insect-bites is said to allay irritation. The centre portion of a bulb, heated and put into the ear, is good for ear-ache. The warm juice of the fresh bulb is also used for this purpose.

The seeds yield a colourless clear oil used in medicines.

It is hardly necessary to refer to this as an article of food. Herodotus (B. C. 413) mentions an inscription upon the great pyramid, stating that 1,600 talents (£428,000) had been paid for the onions and garlic supplied to the workmen during the erection of the pyramid.

A. sativum, Linn.

GARLIC.

Vern.—*Lasan*, HIND.; *Rasun*, BENG.; *Mahaushada*, SANS.; *Som*, from
ARAB.; *Sir*, PERS.; *Vallai-pandu*, TAM.; *Kyetthwon-pen*, BURM.

Cultivated all over India.

Garlic is considered hot and aperient; given in fevers, coughs, piles, leprosy, being regarded as carminative, diuretic, stomachic, alterative, emmenagogue and tonic, and much used by the natives in nervous affections. Externally the juice is applied to the ears for deafness and pain. The oil extracted from the seed is also medicinal. The bulb is given in confection for rheumatism. The properties of garlic depend upon a volatile oil which may readily be obtained by distilling the bruised bulbs. When purified this oil is colourless, and may be distilled without decomposition. When garlic has been eaten the odour of this oil may be detected in the various secretions of the body.

Mixed with vinegar it is used as an astringent in relaxed sore-throat and relaxation of the vocal cords. It is also used in asthma, general paralysis, facial paralysis, gout and sciatica, much thought of in the treatment of flatulent colic. Supposed to prevent the hair turning grey when applied externally. (*Dr. Emerson*.)

Allspice. See *Eugenia Pimenta*, DC., MYRTACEÆ.**Almonds, Bitter and Sweet.** See *Prunus Amygdalus*, Bail., ROSACEÆ.**Almonds, Country.** See *Terminalia Catappa*, Linn., COMBRETACEÆ.

ALOCASIA.

Alocasia indica, Schott, AROIDEÆ.Syn.—*ARUM INDICUM*, Lour.Vern.—*Mánkanda*, HIND.; *Mánkachu*, BENG.; *Mánaka*, SANS.

Generally cultivated around the huts of the poorer classes in Bengal, its large leaves forming a striking feature of such localities. Its acrid

ALOE.

stems and root-stocks form an important article of food, generally eaten in curries by people of all ranks. It is in fact an important article of food in Bengal; the edible stems, often 2 or 3 feet in length, may be preserved for months. Medicinally it is said to be useful in *anasarca*, the flour obtained by pounding the dried stems boiled with rice flour until all the water has evaporated is given to the patient and no other food allowed. (Compare with *Colocasia antiquorum*.)

ALOE.

68

Aloe abyssinica*, Lam., LILIACEAE.*JAFERABAD ALOES.**

Dr. Dymock informs me this plant is common on the coast of Bombay and Guzerat, and that it furnishes the round cakes known as Jaferabad Aloes.

69

***A. succotrina*, Lam.**

SOCOTRINE ALOES OF COMMERCE; (generally supposed to be obtained from this plant.)

Syn.—*A. PERFOLIATA* var. *SUCCOTRINA*, *Curt*; *A. VERA*, *Miller*.—See BAKER in *Linnaean Journal*, XVIII, 173.)

Vern.—In the chemists' shop Aloes go by the same names as are given in the next species, viz., *Sibr*, *bole-siyah*, PERS.; *Mussabar*, *ilva*, *yalva*, HIND.; *Elva*, *eliya*, *sokotri*, DEC.; *Kariya-polam*, TAM.; *Chenna-niyakam*, MAL.; *Mushambaram*, TEL.; *Yelloo*, GUZ.; *Mon* or *mo*, BURM.

This aloe is indigenous to the island of Socotra.

In small doses, the aloes prepared from the juice of the leaves are used as a stomachic tonic; in larger doses, purgative, and indirectly emmenagogue. It is a remedy of great value in constipation caused by hysteria and atony of the intestinal muscular coat. It is also very useful in atonic dyspepsia, jaundice, amenorrhœa, and chlorosis. Locally applied, dissolved in glycerine, it is valued as a stimulant application in skin diseases. (*Pharm. Ind.*)

Dr. Dymock informs me that a mixture of aloes and myrrh is known in the Deccan as *musáubár*, and that socotrine aloes is largely imported into Bombay. *A. Perryi*, Baker, a species recently discovered by Dr. Balfour in Socotra, yields a portion of the socotrine aloes of commerce.

70

***A. vera*, Linn.**

INDIAN ALOE, Eng.; ALOES, Fr.; ALOE, Ger.

Syn.—*A. BARBADENSIS*, *Miller*; *A. PERFOLIATA*, *Roxb.*; *A. VULGARIS*, (*Bauhin*), *Lam.*

Vern.—*Ghikumári*, *kumári*, *kunvar*, HIND.; *Ghirta-kumári*, *girta-kavúr*, BENG.; *Ghitta-kumári*, *kanyá*, SANS.; *Sibr*, ARAB.; *Sibr*, *bole-siyah*, PERS.; *Eliya* (resin), (the plant); *Kora-kand komári*, DEC.; *Kantaśi*, *kora kanda*, *kora-phad*, SIND.; *Kariya-polam*, *kattái*, TAM.; *Musham báram*, TEL.; *Moh*, BURM.

The resinous extract is generally known as *Sibr*, PERS. (See also names given under *A. succotrina*.)

There are many varieties of this plant met with in cultivation throughout India, some of which have gone wild, as, for example, on the coast of South India.

As a medicine the *inspissated juice* from the forms of this species is regarded as but little inferior to that from the preceding species. It is an aperient, and deemed highly beneficial to persons predisposed to

apoplexy. The *fresh juice* from the leaves is said to be cathartic cooling and useful in fevers, spleen and liver disease, enlarged lymphatic glands, and as an external applicant in certain eye diseases. The *pulp* of the leaves is, in native practice, applied to boils, and is regarded as acting powerfully on the uterus, and useful as an emmenagogue. It is also largely used in veterinary medicine. The *root* is supposed to be efficacious in colic.

Mr. J. G. Baker, in the *Linnean Society's Journal*, Vol. XVIII, p. 176, has established the synonyms above given, and formed under this species two varieties. Bentley and Trimen, in their *Medicinal Plants*, reduced all the names for the forms of this species to mere synonyms, under the name of *A. vulgaris*, Lam. I regard Mr. Baker as correct and the varieties formed by him are well known to the natives of India, and their individual properties have been recognised in native practice from almost time immemorial.

Var. officinalis, sp., *Forsk.*

71

Syn.—*A. RUBESCENS*, DC.; *A. INDICA*, Royle.

Vern.—*Kumári*, HIND.; *Ghikawur*, N. W. P.; *Ghirta-kamári*, BENG.
Sirrughá, *kuttalay*, TAM. (see Ainslie); *Nabatussibr*, áúsi, ARAB.
Dura-khite-sibr, PERS.

This is the form met with in a semi-wild condition in Bengal and the North-West Provinces. It has beautiful reddish and orange flowers, with the bases of the leaves purple-coloured and so dilated as to have in all probability suggested the name *A. perfoliata*.

The resinous extract is applied to swellings in the form of a paste to cause absorption. It is used internally by native practitioners in melancholia and brain diseases complicated with gastric symptoms. It produces griping, to correct which is added confection of roses and mastic. Given as a night pill in haemorrhoids. A paste of aloes and turmeric relieves the pain of contusions. (Dr. Emerson.)

Var. littoralis, sp., *Koenig.*

72

Vern.—*Chhótá-rakus-pattah*, *chhotá-kavár*, HIND., DEC.; *Chhótá-jangli-ánanash*, BENG.; *Shíru-katrás-hai*, TAM.; *Chinna-kalabanda*, TEL.; *Dhíkutá kundrá*, BOM.; *Náni-komári*, GUZ. U. C. Dutt says that this plant was not known to the Sanskrit authors, but Ainslie gives it the Sanskrit name of *kumári*.

This is altogether a much smaller form, having yellow flowers in simple spikes, with the bases of the leaves not half so broad as in the preceding, and always of a pale green colour. It has become quite naturalised on the coast of the south of the Madras Presidency. Speaking of its medicinal properties, Ainslie says: "The pulp of the leaves of this small and very succulent plant, when well washed in cold water, is prescribed as a refrigerant medicine in conjunction with a small quantity of sugarcandy. The same pulp, so purified and with the addition of a little burnt alum, the native practitioners consider as a valuable remedy in cases of ophthalmia."

ALPINIA.

Alpinia Galanga, Sws., SCITAMINEE.

73

THE GREATER GALANGALE, Eng.; GALANGA, Port.

Vern.—*Kulanján*, *kálínjána*, *kara-kalijan*, or *kara-kulinján*, SANS., BENG., HIND.; *Péra-rattai*, TAM.; *Pedda-dumpa-rash-trakam*, TEL.; *Pada-goji*, BURM.

A perennial plant, native of Sumatra and Java, now cultivated in East Bengal and South India.

ALTHÆA.

The root-stocks of this plant are aromatic, pungent and bitter, and are used in the form of an infusion in fever, rheumatism and catarrhal affections. The seeds also possess similar medicinal properties. The aromatic tubers are sometimes used as carminative or fragrant adjuncts in complex prescriptions, but they have nothing peculiar in their properties or action. (*U. C. Dutt.*) Drury says that Galangale is much used in China, and is an article of commerce exported to London, realising 12s. to 16s. a cwt. It seems doubtful if it is more than occasionally met with in the London medicine sales. See also **A. officinarum**, Hance.

74 **Alpinia nutans, Roscoe.**LIGHT GALANGALE.

Vern.—*Kastas-serambet*, PERS.; *Punag-champa*, BENG.; *Ilachi*, HIND.; *Pa-ga-gyi*, BURM.

A native of Eastern Archipelago, found in Burma, Silhet, and on the Coromandel Coast; much cultivated in Indian gardens.

The rhizome is often used as a substitute for **A. Galanga**. They are also sometimes used as a substitute for ginger.

75 **A. officinarum, Hance.**

This is the article which is most frequently sold in the bazars under the names of *kulinjan* and *kolijana* or *pánki-jer* or *chandépushpi*.

The vernacular names given for this plant are the same as those given for **A. Galanga**. The root-stock is a native of China, and is largely exported to Europe and India. It is in fact the Galangal of the European shops. This is in India generally known as the *Pan-ki-jer*. It is stomachic tonic, used by native practitioners to reduce the quantity of urine in diabetes. It is used to correct foul breath when chewed, and the juice swallowed stops irritation in the throat. It is considered a nervine tonic and an aphrodisiac. (*Dr. Emerson.*)

ALSTONIA.76 **Alstonia scholaris, R. Br., APOCYNACEÆ.**

Vern.—*Sapta parna*, SANS.; *Chatwan, chatiun*, BENG.; *Satiún, chatiún, satwin, satni*, HIND.; *Satavina*, BOM.; *Chatiwan*, NEPAL; *Satiana*, Ass.; *Pala, wodrase*, TAM.; *Let-top, toungmayobeng*, BURM.

A tall evergreen tree of the Sub-Himalayan tract, from the Jumna eastward, ascending to 3,000 feet, Bengal, Burma, and South India.

The bark of this is medicinally used as an astringent tonic, antihelminthic, alterative and antiperiodic. It is a valuable remedy in chronic diarrhoea and the advanced stages of dysentery. It is also useful in catarrhal fever. The milky juice is applied to ulcers, and, mixed with oil, in ear-ache.

ALTHÆA.77 **Althaea officinalis, Linn., MALVACEÆ.**THE MARSH MALLOW, Eng.: GUIMAURE, Fr.

Vern.—*Gul Khairo*, HIND. and BOM.; *Shemai-tuti*, TAM. The fruits are *Tukm-i-khitim*, PERS. and BOM.; the roots *Resha-i-khitim*, PERS. and BOM.

* A native of Kashmir and the Punjab Himalayas.

This plant was held in great esteem by the Greeks and Latins for its healing properties. The Mahomedans also describe it as a suppurative

and emollient; they also use the leaves in the form of poultice. The leaves and flowers mixed with oil form an application to burns and venomous bites. A decoction of the root with sugar is given in cough and irritation of the intestines and bladder. (Dymock.)

Althaea rosea, L.

THE ENGLISH HOLLY-HOCK, Eng.; GUIMAURE, Fr.

Largely cultivated in Indian gardens, and probably bears the same vernacular names as have been given above for the MALLOW.

The seeds of this plant are demulcent, diuretic and febrifuge. The flowers have cooling and diuretic properties. The roots are supposed to be astringent and demulcent, and are much used in France to form demulcent drinks. Boiled with sugar they form a decoction, much used in India in the treatment of coughs and irritable conditions of the intestines and bladder. (Dymock.) The leaves are used as a poultice or fomentation, and, mixed with oil, are applied to burns or sores caused by snake-bites.

ALTINGIA.

Altingia excelsa, Noronha, HAMAMELIDÆ.

Syn.—LIQUIDAMBER ALTINGIA, Bl.

Vern.—Siláras, HIND.; Méahe-sáyelah, ARAB.; Asle-lubni, PERS.; Nori-uriship-pál, TAM.; Shila-vasam, TEL.; Seláras, GUZ.; Nantayu, BURM.

A tree of Assam and Bhutan, 60 to 100 feet high.

Yields the resin known in Europe under the name "Storax." For medicinal properties see Liquidamber Orientale, Mill.

79

ALUMEN.

Alumen.

ALUM.

Vern.—Phitkari, HIND.; Phatkiri, BENG.; Sphatikari, SANS.; Shíb-saj, ARAB.; Zak, Zake-safed, PERS.; Phatakri, DEC.; Pati-kúram, TAM.; Pati-kúram, TEL.; Patik-káram, MAL.; Keo-khin, BURM.

Alum is prepared from alum shale in Behar and the Punjab. It is often met with in different shade of colour, white, yellow, red and black, depending upon impurities.

In the *Indian Pharmacopœia* this substance has been described as astringent, styptic and antiseptic. Used internally in passive haemorrhages, atonic diarrhoea, infantile cholera, catarrhal affections of the stomach, colica pictonum, hooping cough, and bronchorrhœa; in the form of lotion or powder as a local application for catarrhal ophthalmia, granular eyelids and many other diseases of the eye, in leucorrhœa, gonorrhœa, menorrhagia, prolapsus of the uterus and rectum, and ulcerations. The burnt powdered alum is used as a snuff to stop bleeding from the nose. Potash alum is largely imported into Bombay from Europe. (Dymock.)

80

ALYSICARPUS.

Alysicarpus vaginalis, DC., var. nummularifolius, LEGUMINOSÆ.

Vern.—Nág bala.

Himalayas to Malacca and Ceylon, ascending to 4,000 feet in the North-West Provinces. It grows wild.

This may be the officinal plant so called.

81

ERLO-
GINA.**AMARANTUS.****Amarantus Anardana, Hamilt., AMARANTACEÆ.**Vern.—*Chua, HIND.*

Grows on the Himalayas as high as 9,000 feet.

The seeds of this plant are officinal, being considered astringent and aphrodisiac. They are used in scrofula and as a local application for scrofulous sores used in the form of a liquid.

83 A. campestris, Willd.Vern.—*Mehanada, SANS.; Sirru-kirai, TAM.; Sirru-turu, TEL.*

This plant is generally met with in Bengal and Travancore.

The roots of this plant have demulcent properties.

84 A. farinaceus, Roxb.

The plant is said to possess diuretic and purifying properties.

85 A. gangeticus, Linn., var. angustifolia.Vern.—*Bânsptâ-natiâ.*

Used in the form of an emollient poultice.

86 A. paniculatus, Miq., var. cruentus.Vern.—*Tâj-i-khurâs, bustân afros.*

Used medicinally for purifying the blood and in piles, and as a diuretic in strangury.

A. polygamus, Linn. See *Euxoëus polygamus, Moq.*, AMARANTACEÆ.**87 A. spinosus, Willd.**

PRICKLY AMARANTH.

Vern.—*Kantâ naté or Kanta nutia, BENG.; Kante mat, DEC.; Mulluk-kirai, TAM.*

Frequent in the plains of India, chiefly in Bengal and Malabar.

The whole plant is used as an antidote for snake-poison, and the root as a specific for colic. It is also considered a lactagogue, and, boiled with pulses, is given to cows.

The root has lately been introduced into European practice as a remedy for gonorrhœa (*Dr. Dymock*).

AMMANNIA.**Ammannia baccifera, Linn., LYTHRACEÆ.****BLISTERING AMMANNIA.**Syn.—*A. VESICATORIA, Roxb.*Vern.—*Dadmarī, HIND.; BENG.; Kallar-vanchi, MAL.; Ban-marich, aginbuti-guren, bhara jambol, BOM., DEC.; Kallu rivi, TAM.; Agnivendra pata, TEL.*

A small herbaceous plant, generally met with on wet places throughout India, and extending to Afghanistan and China.

Dr. Roxburgh says: "It has a strong muriatic but not disagreeable smell. Its leaves are exceedingly acrid; they are used universally by the natives to raise blisters in rheumatic pains, fevers, &c. The fresh leaves, bruised and applied to the part intended to be blistered, perform their office in the course of half an hour or a little more and most effectually." O'Shaughnessy says: "We made trial of this article in eight instances; blisters were not produced in less than 12 hours in any, and in three individuals not for 24 hours. The bruised leaves had been removed from all after half an hour. The pain occasioned was absolutely agonizing until the blister rose. We should not be justified in recommending these leaves for further trial; they cause more pain than cantharidis, and are far inferior to the plumbago (*lachittra*) in celerity and certainty of action." "The juice of the plant is given internally in spleen; but it causes great pain, and the result is not certain." (Amster. Desc. Cat.)

I find that an etherial tincture blisters well, without more pain than Liquor Lythæ. (Dr. Dymock.)

Ammoniacum. See *Dorema Ammoniacum, Don, UMBELLIFERÆ.*

AMMONIUM.**Ammonium Chloride.**Vern.—*Nishabal, BENG.; Nausadar, HIND.; Nava-charum, TAM.; Milhunar, AKAB.; Noshadar, PERS.*

91

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This substance is largely manufactured in the Punjab and used in tinning and forcing metals and in the formation of freezing mixtures,

AMBLÖGINA.

AMARANTUS.

Amarantus Anardana, *Hamilt.*, AMARANTACEÆ.Vern.—*Chua, Hind.*

Grows on the Himalayas as high as 9,000 feet.

The seeds of this plant are officinal, being considered astringent and aphrodisiac. They are used in scrofula and as a local application for scrofulous sores used in the form of a liquid.

A. campestris, *Willd.*Vern.—*Mekanada, Sans.; Sirru-kirai, Tam.; Sirru-kura, Tel.*

This plant is generally met with in Bengal and Travancore. The roots of this plant have demulcent properties.

A. farinaceus, *Roxb.*

The plant is said to possess diuretic and purifying properties.

A. gangeticus, *Linn.*, var. *angustifolia*.Vern.—*Bānspātī-natiā.*

Used in the form of an emollient poultice.

A. paniculatus, *Miq.*, var. *cruentus*.Vern.—*Tij-i-khurās, būstān afros.*

Used medicinally for purifying the blood and in piles, and as a diuretic in strangury.

A. polygamus, *Linn.* See *Euxoëus polygamus, Moq.*, AMARANTACEÆ.A. spinosus, *Willd.*

PRICKLY AMARANTH.

Vern.—*Kanta nātī or Kanta nutia, Beng.; Kante mat, Dac.; Mulluk-kirai, Tam.*

Frequent in the plains of India, chiefly in Bengal and Malabar.

The whole plant is used as an antidote for snake-poison, and the root as a specific for colic. It is also considered a lactagogue, and, boiled with pulses, is given to cows.

The root has lately been introduced into European practice as a remedy for gonorrhœa (*Dr. Dymock*).

AMBLÖGINA.

Amblogina polygonoides, *Rafin.*, AMARANTACEÆ.Vern.—*Bantandīlī.*

Used as a vegetable, which is very wholesome, especially for convalescents.

A. senegalensis, *Lamk.*Vern.—*Gangli mehndī, dādmārī.*

Grows in wet places in the plains of the Punjab and of the North-West, ascending to 5,000 feet.

Used as a blistering agent.

AMMANNIA.**Ammannia baccifera, Linn., LYTHRACEÆ.****BLISTERING AMMANNIA.****Syn.—A. VESICATORIA, Roxb.**

Vern.—Dadmarī, HIND.; BENG.; Kallar-vanchi, MAL.; Ban-marich, aginbuti-guren, bhara jambol, BOM.; DEC.; Kallu rivi, TAM.; Agniven-dra paku, TEL.

A small herbaceous plant, generally met with on wet places throughout India, and extending to Afghanistan and China.

Dr. Roxburgh says: "It has a strong muriatic but not disagreeable smell. Its leaves are exceedingly acrid; they are used universally by the natives to raise blisters in rheumatic pains, fevers, &c. The fresh leaves, bruised and applied to the part intended to be blistered, perform their office in the course of half an hour or a little more and most effectually." O'Shaughnessy says: "We made trial of this article in eight instances; blisters were not produced in less than 12 hours in any, and in three individuals not for 24 hours. The bruised leaves had been removed from all after half an hour. The pain occasioned was absolutely agonizing until the blister rose. We should not be justified in recommending these leaves for further trial; they cause more pain than cantharis, and are far inferior to the plumbago (*lachittra*) in celerity and certainty of action." "The juice of the plant is given internally in spleen; but it causes great pain, and the result is not certain." (Amster. Desc. Cat.)

I find that an etherial tincture blisters well, without more pain than Liquor Lythæ. (Dr. Dymock.)

Ammoniacum. See *Dorema Ammoniacum, Don, UMBELLIFERÆ.*

AMMONIUM.**Ammonium Chloride.**

Vern.—Nishebal, BENG.; Nausadar, HIND.; Nava-charum, TAM.; Milhunar, ARAB.; Nashadar, PERS.

This substance is largely manufactured in the Punjab and used in tinning and forging metals and in the formation of freezing mixtures, and also in the separation of ammonia.

In medicine it is prescribed in inflammation of the liver and spleen.

AMOMUM.**Amomum aromaticum, Roxb., SCITAMINEÆ.**

The *Pharmacopœia Indica* refers the Greater Cardamom incorrectly to this plant. See next species.

A. melegueta, Roscoe.

Widely distributed in tropical West Africa.

Grains of Paradise are the produce of this species. They are carminative, aromatic, and are used to give false strength to beer and other liquors. They are also used in cattle medicines. (Smith; *Pharmacographia*.)

90

91

92

93

ASIS.

94. **Amomum subulatum, Roxb.**

THE GREATER CARDAMOM.

Vern.—*Bara-elachi*, BENG.; *Elam*, TAM.; *Elakulu*, TEL.; *Qaqilache-kubar*, ARAB.; *Qaqilache-kalam*, PERS.; *Ben*, BURM.

A native of Nepal.

The Greater Cardamom has a fruit about the size of a nutmeg, irregularly obcordate, flattened antero-posteriorly, having 15 to 20 irregular dentate-undulate wings which extend from the apex downwards for two-thirds of the length of the Cardamom. Dr. King in the *Linnaean Journal*, Vol. XVII, p. 3, clearly showed that the larger Cardamoms were the produce of this species and not of *A. aromaticum*, Roxb., to which plant Dr. Roxburgh attributed them, but he presumes that it may be possible that the latter plant may have been used in "Roxburgh's time, though out of use now.

For medicinal properties see *Elettaria Cardamomum*, Maton.

AMOORA.

95. **Amoora Rohituka, W. & A., MELIACEÆ.**

Vern.—*Harin harua*, *harin khana*, HIND.; *Rohituka*, SANS.; *Tikta-raj*, *pitraj*, BENG.; *Bandri phul*, NEPAL; *Sohaga*, OUDH; *Thitnee*, BURM.

An evergreen tree of Oudh, Assam, North and East Bengal, Western Ghâts, and Burma.

The bark of this plant is used as an astringent.

AMORPHOPHALLUS.

96. **Amorphophallus campanulatus, Blume., AROIDEÆ.**

Syn.—*ARUM CAMPANULATUM*, Roxb.

Vern.—*Zamin-kand*, HIND.; *Ol*, BENG.; *Kand*, SANS.; *Fangali surana*, BOM.; *Karuna*, *sooran*, TAM.; *Muncha kunda*, TEL.

An annual: grows commonly in moist lands of Bengal.

The corm or tuber and the seeds are used as irritants, and, therefore, relieve pain of rheumatic swellings when applied externally. It is considered a hot carminative in the form of a pickle.

Amygdalus communis, Linn See *Prunus Amygdalus*, Baill., ROSACEÆ.

Amyris commiphora, Roxb. See *Balsamodendron Roxburghii*, Arn., BURSERACEÆ.

ANABASIS.

97. **Anabasis multiflora, Mig., CHENOPodiACEÆ.**

Vern.—*Ghaime*, *lana*, *metra lana*, *gora lana*, *dâna*, *shor lana*, *bâi choti*.

Met with in the Punjab, a short distance east of the Sutlej.

Mr. Baden-Powell mentions it amongst his drugs, but does not say anything of its medicinal property.

ANAGAL
LIS.

98

ANACARDIUM.

Anacardium occidentale, Linn., ANACARDIACE.

THE CASHEW NUT.

Vern.—*Kaju*, HIND.; *Hijuli*, BENG.; *Hjali badáma*, *kdjakkalya*, BOM.;
Kola mara, *mundiri*, TAM.; *Theo-pok-thayet*, BURM.

A small evergreen tree, introduced from South America into the coast forests of Chittagong, Tenasserim, the Andaman Islands, and South India.

The medicinal uses of this plant are many. The nut yields an oil which is used as an anaesthetic in leprosy, and as a blister in warts, corns and ulcers. The oil keeps wood painted with it from being ant-eaten. Between the laminae of the shell of the kernel there is a black, caustic fluid, which contains an acrid, oily principle, *Cardol*, and a peculiar acid, *Anacardic Acid*. It possesses powerful rubefacient and vesicant properties. The spirit distilled from the expressed juice of the fruit may be used as a stimulant.

ANACYCLUS.

Anacyclus Pyrethrum, DC., COMPOSITE.

THE PELLITORY OF SPAIN.

Vern.—*Akarkara*, HIND., BENG., BOM.; *Akkarakarum*, TAM.; *Akara karava*, *Akarakarabha*, SANS.

Indigenous in North Africa, whence it has been introduced into South Europe.

This plant has stimulant properties, and when locally applied, acts as an irritant and rubefacient. It is also used as a sialagogue. In India it is often given to parrots with the idea of helping to make them talk. It is imported into India, and chiefly from Algeria. Ainslie (*Mat. Ind.*, I, 300) gives a long account of this medicine. He informs us that vegetarians prescribe an infusion of it in conjunction with the Lesser Galangal and ginger as a cordial and stimulant in lethargic cases, in palsy, and in certain stages of typhus fever, and that they also order it to be chewed as a masticatory for toothache. It certainly possesses powerful stimulant properties, but is scarcely ever employed in Europe as an internal remedy; though it has been found useful as a sialagogue, and as such, Dr. Thomson says, has been given with success in some kinds of headache, apoplexy, chronic ophthalmia and rheumatic affections of the face.

ANAGALLIS.

Anagallis arvensis, Linn., var. *caerulea*, PRIMULACE.Vern.—*Yonkhmári*, *jainghani*, N. W. P.

Found in Bengal, North-West India, and the Himalaya, from Nepal westward, ascending to 5,000 feet; Central India, the Nilgiri Hills, and Ceylon (perhaps introduced).

Used to intoxicate fish and to expel leeches from the nostrils. For this purpose the juice of the various species of *Begonia* would seem admirably suited. (See Leech.) It is also used in cerebral affections, leprosy, hydrophobia, dropsy, epilepsy, and mania. Formerly it was used in Europe in epilepsy, mania, hysteria, delirium, enlargement of the liver, spleen, dropsy, emaciation, stone, the plague, bites of serpents and mad animals, and in numerous other diseases.

99

100

JANANASSA.

ANAMIRTA.

101 Anamirta *Cocculus, W. & A., MENISPERMACEÆ.*

THE COCCULUS INDICUS.

Vern.—*Kálmári*, HIND.; *Kákhphala*, BOM.

A climber of Southern and Eastern India and Burma.

The bitter berries of this plant are used in India to poison fish and crays. In medical practice they are never administered internally, but are sometimes used in the form of an ointment. This ointment is employed as an insecticide, to destroy pediculi, &c., and in some obstinate forms of chronic skin diseases. (*Bentley and Trimen.*)

ANANASSA.

102 Ananassa *sativa, Linn. BROMELIACEÆ.*

THE PINE APPLE.

Vern.—*Anáras*, HIND. (DEC.); *Anánaš* (vulgarly *anáras*), BENG.; *Anáras*, GUZ.; *Anáshap-páxhane*, TAM.; *Anása-pandu*, TEL.; *Kaita-chakka*, MAL.; *Aanunnás*, ARAB. & PERS.; *Annas*, CINGH.; *Nana-si*, BURM.

A perennial universally cultivated in all tropical and sub-tropical countries. The entire natural order to which this much-prized fruit belongs are natives of America and were unknown to Europe, Africa and Asia prior to discovery of the Western Continent. The Pine Apple is apparently a native of Brazil, and it was first made known to Europe by Goncalo Hernandez in 1513; it was introduced by the Portuguese into Bengal in 1594. "Its introduction is expressly mentioned by Indian authors such as Abul Fuzl in the *Ayeen Akbari*, and again by the author of *Dhara Shekoih*. (*Royle.*) The rapidity with which it spread through Europe, Asia, and Africa is unparalleled in the history of any other fruit. It seems to have met with universal acceptance; hence, apparently, the purity with which its American name *Anasi* or *Nanas* has passed through so many languages. The Asiatic recipient of a living plant seems to have carried off and adopted as his own the name by which so valuable a treasure was made known to him. The first pine apples which appear to have reached England were those presented to Cromwell. The next notice is of the "Queen pine" presented to Charles II. on the 19th July 1688, having been sent from Barbados, and the first pine apple grown in England seems to have been reared from the ejected crowns of these. It was first systematically cultivated in Europe by M. Le Cour, a Dutch Merchant near Leyden. It was first fruited in England in the year 1712; since then its cultivation may be said to have become universal all over Southern Europe. The largest pine on record was reared in England, and it weighed over 14 lbs.

In India the fresh juice of the leaves is regarded as a powerful anthelmintic, and that of the fruit an antiscorbutic. A friend informs me that the natives regard the fresh juice of the fruit as poisonous if hypodermically injected.

Anatherum muricatum, Retz. See Andropogon muricatus, Retz., GRAMINEÆ.

Anchusa tinctoria, Desv., BORAGINÆ (a synonym for *Alkanna tinctoria*, *Tausch.*) occurs in works on Indian Economic Science, the root of which is incorrectly described as yielding the *Ratanjots*, for which see *Onosma echioïdes*, *Linn.* *Anchusa* is not met with in India.

ANDROP
GON.**ANDRACHNE.****Andrachne cordifolia**, Müll.-Arg., EUPHORBIACEÆ.

103

Syn.—*LETOPUS CORDIFOLIUS*, DCN.Vern.—*Kurkni*, *gárgálí*, *kurkuli*, PB.

A slender shrub, frequent in parts of the Punjab Himalaya at from 2,500 to 7,500 feet.

"The twigs and leaves are said to kill cattle when browsed in the early morning on an empty stomach." (Dr. Stewart.)

ANDROGRAPHIS.**Andrographis paniculata**, Nees, ACANTHACEÆ.

104

THE CREAT.

Vern.—*Kriat*, HIND.; *Kalmegh*, BENG.; *Kirata*, SANS.; *Qasabussarirah*, ARAB.; *Nainehavanda*, PERS.; *Olenkirdyata*, BOM.; *Nila vombu*, TAM.; *Nelu-veenum*, TEL.

An annual; grows wild in Bengal, cultivated in South India.

This bitter shrub is well known under the name of *Kalmegh*, and forms the principal ingredient of a household medicine called *Alut* extensively used in Bengal. The expressed juice of the leaves, together with certain spices, such as cardamoms, cloves, cinnamon, &c., dried in the sun, is made into little globules, which are prescribed for infants to relieve griping, irregular stools and loss of appetite. The medicinal properties of this plant are many. The roots and the leaves are febrifuge, stomachic, tonic, alterative and anthelmintic. According to Murray, the plant is very useful in general debility, dysentery and certain forms of dyspepsia.

ANDROPOGON.**Andropogon citratus**, DC., GRAMINEÆ.

105

Syn.—*CYMBOPOGON CITRATUM*, DC.Vern.—*Gandhatrina*, *olachá*, BOM.

The Lemon Grass which yields Lemon Grass oil, Verbena oil or Indian Molissa Oil.

A large coarse grass known only in cultivation, rarely flowering; commonly met with in gardens throughout India, and in Ceylon cultivated for the purpose of preparing the Otto of Lemon-grass or Verbena oil.

A. laniger, Desf.

106

THE JUNCUS ODORATUS.

Syn.—*A. IWARANCUSA*, Roxb. (*in part*); *CYMBOPOGON LANIGER*, Desf.Vern.—*Lémjak*, *khádi*, *panni*, *solára*, *san*, HIND.; *Káránhus*, BENG.; *Lémajak*, SANS.

A native of the lower slopes of the Himalaya.

Used to purify the blood, and in coughs, chronic rheumatism and cholera. It is recommended as a valuable aromatic tonic in dyspepsia, especially that of children; it is also used as a stimulant and diaphoretic both by natives and Europeans, in gout, rheumatism and fever. (Balfour-Powell.)

ANEILEMA.

107 Andropogon muricatus, Rets.

Syn.—*A. squarrosus*, Linn.; *VETIVERIA ADORATA*, Virey; *ANATHERUM MURICATUM*, Rets; *RAPHIS MURICATA*, Nees; *PHALARIS BIZANOIDEA*, Linn.

Vern.—*Khas, bona, panni, senih, gamwar, onci*, HIND.; *Khas-khaa*, BENG.; *Vetta-ver*, TAM.; *Vâla, khawshhaa*, BOM.; *Usir*, SANS.; *Kas*, ARAB., PERS.

This grass is found to grow abundantly on high sandy banks and waste fields in Bengal, the Coromandel Coast, and Upper India.

An infusion of the roots is given as a febrifuge and a powder in bilious complaints. It is regarded as stimulant, diaphoretic, stomachic and refrigerant. The essence (or otto) is used as a tonic. The fragrant roots are much used for the manufacture of tatties.

108

A. Nardus, Linn.**THE CITRONELLA, GINGER OR SPICE GRASS.**

Syn.—*A. FLEXUOSUS*, Nees; *A. COLOHATUS*, Nees; *A. MARTINI*, Thoro. (*not of others*); *A. IWARANCUBA*, Roxb. (*in part*); *CYMBOPOGON FLEXUOSUS*, Nees; *C. NARDUS*, Linn. (*in Pharm. Ind.*)

Vern.—

A grass common in the plains and lower hills of the North-Western Provinces and Punjab; extensively cultivated in Ceylon and Singapore for the production of oil of Citronella. Plesse says that the annual export of Citronella from Ceylon is about 40,000 lbs., valued at £8,000. The export price of Citronella oil at Columbo is about 4s. 1d. per lb. It is extensively used in the preparation of the so-called "honey soap."

109

A. Schoenanthus, Linn.**THE GERANIUM GRASS.**

Syn.—*A. MARTINI*, Roxb.; *A. NAEDOIDES*, Nees; *A. CALAMUS-AROMATICUS*, Royle; *A. PACHNODES*, Trin.

Vern.—*Rusa ghas, agia ghâs, bhor, musel, mirchia gand*, HIND.; *Bujina, pdla-khari*, N. W. P.; *Ross, rokisha*, BOM.

This grass grows wild in Central India, the North-West Provinces and the Punjab.

The oil is used as a liniment in chronic rheumatism and neuralgia, and is believed to have the property of curing baldness.

An oil, known as *Neimar*, or *Raus-ka-tsl*, is prepared from the rhizomes of this plant, used medicinally, and in perfumery. (Atkinson.)

ANEILEMA.

110

Aneilema tuberosa, Ham., COMMELINACEÆ.

Vern.—*Siyah musli*, HIND.

A native of Kumaun, found rarely to the west of the Jumna.

Said to have astringent and tonic properties, and considered by natives to be hot and dry; useful in headache, giddiness, fever, jaundice and deafness. It is also an antidote to poisons, and regarded as a cure for snake-bite.

The dried powder mixed with sugar is used as an aphrodisiac. Mixed with the juice of the *tulsi* leaves it is used for pain in the kidneys, and is one of the chief remedies used by hakims for spermatorrhœa. (Dr. Emerson.)

ANEMONE.

Anemone obtusiloba, Don, RANUNCULACEÆ.ANISOME.
LBB.

III

Vern.—*Rattanjog, padar, PB.*

Temperate and Alpine Himalaya, from Kashmir to Sikkim; altitude 9,000 to 15,000 feet.

In Hazara the pounded root, which is acrid, is mixed with milk and given internally for contusions. In Bissahir it is said to be used as a blister, but to be apt to produce sores and scars. (G. L. Stewart.)

Anethum Sowa, Kurz, and A. graveolens, Linn.See *Pucedanum graveolens, Benth., UMBELLIFERÆ.*

ANGELICA.

Angelica glauca, Edgw., UMBELLIFERÆ.

II2

Vern.—*Chora or Churd.*

From Kashmir to Simla, altitude 8,000 to 10,000 feet; found also in the Dhania Dhar Range, above the Kangra Valley.

A cordial and stimulant remedy, formerly used in the cure of flatulence and dyspepsia. It is also used in obstinate constipation, and in bilious complaints.

Angustura Bark. See *Galipea cusparia, St. Hil., RUTACEÆ.***Anise-seed. See *Pimpinella Anisum, Linn., UMBELLIFERÆ.*****Anise, Star. See *Illiium Anisatum, Linn., MAGNOLIACÆ.***

ANISOCHILUS.

Anisochilus carnosus, Wall., LABIATE.

II3

Vern.—*Panjiri-kupat, HIND.; Ajvin-kapatta, DEC.; Karppara-valli, TAM.; Kópurli, panagiron, chora-onvd, BOM.; Karpára-valli, TEL.; Chomaru, MAL.; Dodda-patri, KAN.; Kurpuli, MAR.*

Found in North Circars and Malabar.

Ainslie says that the fresh juice of the leaves mixed with sugar-candy is given by the Tamil doctors in Cynanche, and, mixed, with sugar and gingelly-oil, is used as a cooling liniment for the head. The leaves and stems are given in infusion in coughs and colds as a mild expectorant. The plant yields a volatile oil which is said to be stimulant, diaphoretic and expectorant. (Dymock, *Pharm. Ind.*)**Anisodus luridans, Linth. & Otto. See *Scopolia lurida, Dunal, SOLANACEÆ.***

ANISOMELIS.

Anisomelis malabarica, R. Br., LABIATE.

II4

Vern.—*Pomayarutio, TAM.; Moga-beerakoo, mabheri, china-ranabheri, TEL.; Gao-suban, HIND.; Bootian-kooshum, SANS.*Found in South India. Dr. Birdwood mentions this as one of the plants which in Bombay are sold as *gao-suban*.

ANTHEMIS.

" Few plants are held in higher esteem or are more frequently employed in native practice than this. An infusion of the aromatic, bitter leaves is in common use in affections of the stomach and bowels, catarrhal affections, and intermittent fevers. According to Dr. Wight, in addition to its internal use in the cure of fevers, patients are made to inhale the vapour of a hot infusion so as to induce copious diaphoresis." (Pharm. Ind.)

115

***Anisomelis ovata*, R. Br.**Vern.—*Gobura*.

Found in Ceylon, Coromandel, Bombay, Bengal, and Nepal.

The whole plant has a strong camphoraceous smell. In Ceylon a distilled oil is prepared from it and found useful in uterine affections. It has also carminative, astringent, and tonic properties.

ANONA.

116

***Anona squamosa*, Linn., ANONACEÆ.**

THE CUSTARD APPLE.

Vern.—*Sharifa, sitaphal*, HIND.; *Ata, lana*, BENG.; *Sita*, TAM.; *Atta*, MAL.; *Ausa*, BURM.

A small tree, introduced from the West Indies, and naturalised throughout India and Burma.

The ripe fruit is medicinally considered a maturant, and when bruised and mixed with salt, is applied to malignant tumours to hasten suppuration. The seeds contain an acrid principle fatal to insects, and the dried unripe fruit, powdered and mixed with gram flour, is used to destroy vermin. An infusion of the leaves is considered efficacious in prolapsus ani of children. The root is considered a drastic purgative; natives administer it in acute dysentery. It is also employed internally in depression of spirits, and spinal diseases.

117

ANTHEMIS.***Anthemis nobilis*, Linn., COMPOSITÆ.**

COMMON OR TRUE CHAMOMILE.

Vern.—*Baboono-phool*, HIND., DEC.; *El-dakl-mirsie*, ARAB.; *Babu-nah, babu-na-ga*, PERS. THE *Anthemis* OF DIOSCORIDES.

A perennial herb, indigenous in England and Persia, and plentiful in France, Spain, Germany, and Russia. Imported into India and also cultivated in the gardens of the rich.

The dried flower-heads have been made officinal in *Indian Pharmacopœia*. They are described as stimulant, tonic and carminative, and useful in constitutional debility, hysteria, and dyspepsia. Formerly, they were employed in intermittent fevers, but this has been superseded by cinchona. In large doses they act as emetic. Chamomile oil possesses stimulant and antispasmodic properties, and is considered a valuable remedy for flatulence. Persian chamomile is obtained from *Matricaria Chamomilla*, Linn. (*M. Suaveolens*, Linn.), which see.**A. Pyrethrum, Linn. See *Anacyclus Pyrethrum*, DC., COMPOSITÆ.**

ANTHOCEPHALUS.

Anthocephalus Cadamba, Mig., RUBIACEÆ.

Syn.—NAUCLEA CADAMBA, Roxb.

Vern.—Kaddam, raram, HIND.; Kadam, BENG.; Kadamba, SANS.; Pandár, LEPCHA; Roghu, Ass.; Vella, cadamba, TAM.; Kadambé, TEL.; Kadam, MAR.; Kadamba, náyá, BOM.; Muoo, maookadoom, BURM.

A large deciduous tree wild, in North and East Bengal, Pegu, and the West Coast; cultivated in North India.

The bark is used medicinally as a febrifuge and tonic.

118

ANTIARIS.

119

Antiaris toxicaria, Leesch., URTICACEÆ.

TRAVANCORE SACKING TREE; THE UPAS TREE.

Syn.—A. SACCIDORA, Dals.

Vern.—Alli, nattavil, TAM.; Mya-sheik, BURM.; Jásund, rákhá, chán-dala, chándakudá, charvára maddá, BOM.

A forest tree of West India.

The bitter seeds contain a peculiar principle which may prove an active medicinal agent. Information regarding the properties of these seeds would be desirable. (*Pharm. Ind.*)

ANTIMONIUM.

120

Antimonium or Antimony, Black.

Vern.—Ismad, kohal, ARAB.; Surmák, PERS.; Surme-ka-patthar, HIND.

Largely used by women in India as an application to edges of the eyelids to improve personal appearance. (*Dr. Emerson.*)

Antirrhinum glaucum, Linn. See Linaria glauca, Spreng., SCROPHULARIACEÆ.

APIUM.

121

Apium graveolens, Linn., UMBELLIFERÆ.

Vern.—Ajmod, HIND.; Karafsh, ARAB.; Badájamoda, BOM.; Kursab, PERS.; Bhútjhata, PB.

Met with at the base of the North-West Himalaya and outlying hills in the Punjab; cultivated by Europeans and natives in the Punjab for its root.

The officinal root is considered alterative and diuretic, and given in anasarca and colic. The seeds also are given as stimulant and cordial.

As an antispasmodic they are used in bronchitis, asthma, and to some extent by natives for liver and spleen diseases, and said to be emmenagogue (*Dr. Emerson.*)

A. involucratum, Roxb. See Carum Roxburghianum, Benth., UMBELLIFERÆ.

Aplotaxis auriculata, DC. See Sansarea hypoleuca, Spreng., COMPOSITÆ.

Apicotaxis candidans, DC. See *Sassurea candidans*, C.B.C.

A. Lappa, Deone. See *Sassurea Lappa*, C.B.C. (THE COSTUS.)

AQUILARIA.

122

Aquilaria Agallocha, Roxb., THYMELAEAE.

EAGLE-WOOD, ALOES-WOOD, LIGNUM-ALOES, CALAMBAC-WOOD,
AGILA, AKYAW.

Vern.—*Agar*, *ugār ugār*, HIND., BENG.; *Sasi*, ASS.; *Akyan*, BURMA; *Agar*, *aggalichandana*, TAM.; *Agru*, TEL.; *Aguru*, SANS.; *Agar*, *oōd*, ARAB.; *Ayalur-che*, PERS.

A large evergreen tree of East Bengal, Burma, Malayan Peninsula, and Archipelago.

Since the time Dr. Roxburgh described this plant scarcely any further information has been obtained. The conclusion he arrived at seems correct, namely, that the much-prized wood is obtained from East India, and from the forests to the east and south-east of Sylhet, extending through Manipur, Chittagong, Arakan, to Mergui and Sumatra. From India it finds its way to China, and from Cochin China it was first exported to Europe; hence, in all probability, the association of the plant with that country. Under the name of *Alceylon Agallochum*, Loureiro described a plant said by him to be a native of Cochin China, and to yield the true Calambac-wood or Agallocha. His description is incomplete and very imperfect, and his genus has therefore been set aside by Bentham and Hooker in their *Genera Plantarum*, while his plant has never since been identified. DeCandolle refers it to *Leguminosae*.

No further evidence having come to light of the existence of Agallocha-wood in Cochin China, it is probable that the odoriferous wood was not the product of the tree described by Loureiro, but an importation obtained from India. There are many plants, however, which resemble the Agallocha in the odour of their wood, resin or sap, and it is therefore probable that Cochin China may possess one of these. The saps of *Excoecaria Agallocha*, L., a small tree found along the coast of Burma from Chittagong to Tenasserim, is supposed to resemble Agallocha, hence the specific name (*see Excoecaria*). So also the resinous excretions from various members of the Myrrh family have been erroneously associated with the *Agar*. This, in all probability, is the explanation of *Balsamodendron Agallocha*, W. & A., as in Drury, the description of which most probably contains a compilation of the characters attributed to *B. Mukul*, *B. Roxburghii*, and *Aquilaria Agallocha*. Smith, in his *Dictionary of Economic Plants*, seems to lay stress upon Agallocha being the vernacular name for *Excoecaria Agallocha*. This is quite a mistake, for the name Agallocha does not appear to be of native origin.

The wood of this tree is impregnated with a resinous principle, often found collected in masses here and there throughout the stem. This curious fact is in all probability due to some diseased condition which might be artificially produced in order to increase the formation or collection of the resin. To obtain this sweetly-scented resin the trees are hewn down and cut to pieces while searching for the masses of resin.

The wood chips (*chura-agar*) are largely sold in the bazars and used, by themselves or associated with *Bdellium*, as incense, burned at Hindu temples. They are also boiled, and the water thereafter distilled, in order to prepare *Aggar-attar*, a perfume much admired by the people of India.

The fragrant wood *Ood* is also largely used for making jewel cases, and, indeed, precious stones are very frequently set in it. Aloes-wood is also largely used for making ornaments and rosary beads.

Dr. Royle says the Aloe-wood of the Scriptures is the Agalloch or Agallocha of the East, so famed for its fragrance, and is yielded by *Aquilaria Agallocha*. Gamble says that "Akyaw" (the Burmese name for Agallocha) is the most important produce of the forests of South Tenasserim and the Mergui Archipelago. It is found in fragments of various shapes and sizes in the centre of the tree, and usually, if not always, where some former injury has been received."

The fragrant resinous substance is considered cordial by some Asiatic nations. It has been prescribed in gout and rheumatism (*Ainslie, ex Voigt's Hortus Calcut.*). Lourdes observes that the Calambac is a delightful perfume, serviceable in vertigo and palsy, and the powder is useful as a restrainer of the fluxes and vomiting. In decoction it is useful to allay thirst in fever.

EAGLE-WOOD (P resin) is stated to bring about £30 per cwt. for 1st quality (Sumatran); £20, 2nd quality (Malaccan); and £2-10, 3rd quality (Malaccan and Indian). It should melt like wax and emit an agreeable odour.

ARACHIS.

, *Arachis hypogaea*, Linn., LEGUMINOSÆ.

THE EARTH-NUT.

Vern.—*Buchanaka*, SANS.; *Mungphali*, HIND.; *Mat-kulai, chinor-baddam, belati-mung*, BENG.; *Verkadalai*, TAM.; *Vernana-ga-kaya*, TEL.; *Maibai*, BURM.

An annual of South America; now generally cultivated in South India and some parts of Bengal and Upper India.

Arachis oil forms a good substitute in pharmacy for olive oil. It has now almost entirely superseded that of olive oil in India, both for pharmaceutical and other purposes. It is well adapted for the preparation of ointments.

ARCTOSTAPHYLOS.

Arctostaphylos Uva Ursi, Spreng., ERICACEÆ.

Syn.—*ARBUTUS UVA URSA*, Linn.

A native of North America, Europe, and Asia. The leaves are astringent diuretic. They are imported and sold by druggists.

ARECA.

Areca Catechu, Linn., PALMÆ.

125

THE BETEL NUT OR ARECA PALM.

Vern.—*Supari*, HIND.; *Gubik*, SANS.; *Supari, gua*, BENG.; *Fósal*, ARAB.; *Popal, gird chob*, PERS.; *Camonugu, paku*, TAM.; *Puwak*, CINGH.; *Kwam-thu-beng*, BURM.

A tall, elegant palm, with slender, straight stems, cultivated throughout tropical India.

Young nut is said to possess astringent properties, and is prescribed in bowel complaints and bad ulcers. It contains a large proportion of tannic and gallic acids, and hence its astringent property. The burnt nuts when powdered form an excellent dentifrice. According to Dr. J. Shortt, the powdered nut, in doses of 10 or 15 grains every three or four hours, is useful in checking diarrhoea arising from debility. It

DODCHIA.

has also been found very useful in urinary disorders, and is reported to possess aphrodisiac properties. The dried nuts when chewed produce stimulant and exhilarant effects on the system.

The nut is regarded as a nervine tonic and emmenagogue, and is used as an astringent lotion for the eyes.

ARGEMONE.

- 126 Argemone mexicana, Linn., PAPAVERACEÆ.**

Vern.—*Skidkhântâ*, BENG.; *Bherband*, HIND.; *Brahmadandi*, SANS.; *Brahmadanduvirai*, TAM.; *Pinvalâ-dhotra*, *pilodhaturo*, BOM.

A spring herbaceous annual, introduced into India within historic times, common everywhere from Bengal to the Punjab on roadsides and waste-places, self-sown, and appearing in the cold season.

The yellow juice of this plant is used as a medicine for dropsy, jaundice, and cutaneous affections. It is also diuretic, relieves blisters, and heals excoriations and indolent ulcers. The seeds have narcotic properties. They yield on expression a fixed oil, which has long been in use amongst West Indian practitioners as an aperient. It exercises a soothing influence when applied to herpetic eruptions and other forms of skin diseases. The native practice of applying the juice of this plant to the eye in ophthalmia is dangerous.

ARGENTUM.

- 127 Argentum or Silver.**

Vern.—*Chandi*, HIND.; *Rupya*, *tara*, SANS.; *Fisah*, ARAB.; *Nukrah*, PERS.

Silver-leaf is used medicinally combined with other metals, chiefly with gold or iron, for nervous diseases. (*Dr. Emerson.*)

ARGYREIA.

- 128 Argyreia speciosa, Sweet., CONVOLVULACEÆ.**

Vern.—*Samandar-kâ-pat*, *Samandar-phaind*, HIND.; *Bicktarak*, BENG.; *Samudrapalaka*, SANS.; *Kaf-darya*, PERS.; *Shamuddi rab-pach-chai*, TAM.; *Samudra shoka*, BOM.; *Samudra-pâta*, TEL.; *Samandar-kâ-patta*, DEC.

A twining perennial, found all over India, from Assam to Belgaum and Mysore, cultivated in China and the Mauritius.

The leaves are maturative and absorptive and are used as emollient poultices for wounds, and externally in skin diseases, having rubefacient and vesicant properties. The root is regarded as alterative, tonic, and useful in rheumatic affections and diseases of the nervous system. In synovitis the powdered root is given with milk.

Mixed with vinegar the sap is rubbed over the body to reduce obesity. (*Dr. Emerson.*)

ARISTOLOCHIA

- 129 Aristolochia bracteata, Retz., ARISTOLOCHIACEÆ.**

THE BRACATEATED BIRTHWORT.

Vern.—*Kirâdmâr gandanor gandati*, HIND.; *Patra bunga*, *katrabungâ*, PERS., SANS.; *Gundaisse*, *hiramar*, DEC.; *Addu-tina-pally*, TAM.; *Gadidegada-pora-shu*, TEL.; *Gandhatti*, *kidamari*, BOM.

Found on the banks of the Jumna and Ganges and in the Deccan. Seems to luxuriate on the black soils of Western India. (*Dymock.*)

ARISTO-
LOCHIA

Every part of this plant is nauseously bitter, and is much used by the Hindu physicians on account of its anthelmintic properties. Two fresh leaves rubbed up in a little water, and given to an adult for a dose, once in twenty-four hours, are considered a cure for purging with gripes. (Roxburgh.) The natives squeeze the juice of this plant into wounds to kill worms. (Dr. Gibson.) It is spoken of by Dalzell as possessing "a merited reputation as an antiperiodic in intermittent fevers." It is also supposed to be an emmenagogue. Dr. J. Newton reports that in Sind the dried root, in doses of about a drachm and a half, is administered during labour to increase uterine contractions. It holds a high reputation as an antiperiodic in the treatment of fevers. For this purpose it is often made into a paste along with the seeds of *Barringtonia acutangula*, *Celastrus paniculata*, and Black Pepper, the whole body being rubbed with this paste in malarial fevers. (Dymock, Dalsell; and Gibson's Flora of Bombay.)

Aristolochia indica, Linn.

130

THE INDIAN BIRTHWORT.

Vern.—*Isharmul, jorabel, HIND.; Isarmul, BENG.; Sápasana, BOM.; Safurs, GOA; Sunanda, hari, jovari, arkamula, SANS.; Zaravandi-hindi, ARAB.; PERS.; Ich-chura-muliver, TAM.*

A twining perennial, found all over India, Bengal, Konkan, Travancore, and Coromandel.

The root possesses emmenagogue and antiarthritic properties. It enjoys, like all members of this genus, the reputation of being a valuable antidote for snake-bite, and is said to be used to effect abortion. It is also held in much esteem by the natives as stimulant and tonic, and is used by them in intermittent fevers and other affections. The early Portuguese settlers called it *Rais de Cobra*, owing to its supposed efficacy against the bite of the cobra, being both taken internally and a powder of the root applied externally to the injured part.

A. longa, Linn.

131

LONG-ROOTED BIRTHWORT.

Vern.—*Zerawand-tawil, aristalookhea, ARAB.; Zerawand-dras, PERS.*

Indigenous to South Europe; imported into India.

The leaves are said to be useful in the cure of snake-bite, especially cobra-bites. The root is bitter and used as an emmenagogue and in diseases of the womb and affections of the gums or ulcers; also in indigestion and bowel complaints of children. It is said to act as a tonic and febrifuge.

Used by natives in apoplexy, jaundice, paralysis, gout and chronic rheumatism. (Dr. Emerson.)

A. rotunda, Linn.

132

ROUND-ROOTED BIRTHWORT.

Vern.—*Zarawand-modderij, ARAB.; Zarwand-gird, PERS.*

Indigenous in South Europe; imported into Bombay.

Used in coughs. The root is hot and aromatic. It is used by natives in the treatment of itch, lice, and intestinal worms; also in leprosy and ulcers, and to promote secretion of urine. It is also known as an antidote for poisons. Dr. Dymock in his *Materia Medica of Western India* says it is difficult to get this drug pure, it being often adulterated with the corms of an aroid.

ARISTOLOCHIA.

133 *Aristolochia serpentaria*, L.

THE VIRGINIAN SNAKE ROOT.

A native of North America.

The root of this species is given in the *Pharmacopœia Indica* as the officinal form of *Aristolochia*. Dr. Dymock and other authors allude to it as imported into India, and it is therefore probable that it is only met with in chemists' shops. Information as to whether any of the preceding forms are regarded as officinal in India is desirable.

ARNICA.

134 *Arnica montana*, L., COMPOSITÆ.

ARAICA.

Native of Central and South Europe.

Imported into India, being officinal in the *Pharmacopœia*. Used internally as a stimulant and externally as a sedative and resolvent. In British practice its use is limited to the application of the tincture to sprains, &c.

ARSENIC.

135 Arsenic, White, or Arsenicum Album.

Vern.—*Sunbul-khár, sankhya-sunbul*, HIND.; *DEC.*; *Sankha visha*, SANS.; *Sambala-kshára*, BENG.; *Vellai-páshanam*, TAM.; *Tella-páshánam*, TEL.

In Indian *Pharmacopœia*, this substance is described as alterative, tonic, antiperiodic, in large doses powerfully poisonous. It has been used with much success in ague, neuralgia and spasmodic affections, and in chronic skin diseases, including leprosy. In chronic rheumatism, cancer, uterine congestion, menorrhagia, snake-bite, and chronic catarrhal affections, it has proved an effectual remedy. (*Pharm. Ind.*)

Artanthe elongata, Miq. See *Piper angustifolium*, Ruiz, PIPERACEÆ.

ARTEMISIA.

136 *Artemisia maritima*, Linn., COMPOSITÆ.

WORM-SEED or SANTONINE.

Syn.—A. sp. in *Pharm. Ind.*

Vern.—*Sheek, sarifoon, afsantin-ul-bahr*, ARAB., PERS.; *Kiramáni onva*, BOM.

Western Himalaya, from Kashmir to Kumaun, altitude 7,000 to 19,000 feet, Western Tibet; in Salt Plains, altitude 9,000 to 14,000 feet, abundant. Commercially obtained from Russia.

The flower-heads of this plant are largely used for their anthelmintic, deobstruent, and stomachic tonic properties. In the form of a poultice it is used to relieve pain caused through stings of insects and poisonous bites. Santonine is chiefly used in the treatment of round and thread worms. It has the peculiar property of causing objects to appear yellow to patients under the action of this medicine.

137 *A. persica*, Boiss.

Vern.—*Sheek, sarifoon, afsantin-ul-bahr*, ARAB. and PERS.

Bellow collected this species in Afghánistán, where he states that it is very abundant, the plant being used as a tonic, febrifuge and vermifuge. It is also found in Western Tibet, altitude 9,000 to 14,000 feet.

Artemisia sacrorum, Ledeb.

Vern.—*Tatwen, munyá, niurtsei, jau, chémbar, sbur, bárnah, PB.*

Western Tibet, Kunáwár, and the Tibetan region of Kumaun; altitude 9,000 to 17,000 feet.

Said to be given medicinally to horses in affections of the head.

ARTEMI-

SIA.

138

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. scoparia, Waldst. & Kit.

Vern.—*Jhau, lasaj, biur, durumga, dond, marda, PB.; Chári saraj, BAZAR NAME.*

Found in the Upper Gangetic Plain, and westward to Sind and the Punjab, Western Himalaya; from Kashmir to Lahoul, altitude 5,000 to 7,000 feet; Western Tibet, altitude 7,000 to 12,000 feet.

The branches appear to be officinal in the Punjab. The smoke is considered good for burns, and the infusion is given as a purgative.

139

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A. Sieversiana, Willd.

Vern.—*Ajsantin, downa, PERS., ARAB.*

Western Himalaya from Kashmir to Lahoul, altitude 8,000 to 10,000 feet; Western Thibet, China, and Russia.

A plant very similar to **A. absinthium, L.** It is said to be cultivated at Bandora near Bombay, from which fresh supplies reach the market. The Bombay imports of the drug are from Persia. Hakims prescribe this drug in hypochondriasis, jaundice, dropsy, gout, scurvy, and also as an emmenagogue. (*Dymock.*)

140

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A. sternutatoria, Roxb. See Centipeda orbicularis, Lour., COMPOSITÆ**A. vulgaris, Linn.**

INDIAN WORM-WOOD.

Syn.—*A. INDICA, Willd.*

Vern.—*Nagdown, nagadona, HIND., BENG.; Sarpan, davandá, BOM., Titapati, NEPAL; Nagadamani, SANS.; Ajsantin-hindi, ARAB.; Barin jásifekhái, PERS.; Machipatri, TAM.; Daranama, TEL.*

Throughout the mountain tracts of India, altitude 5,000 to 12,000 feet on the West Himalaya, Khásia hills, Manipur, and the mountains of North Burma.

"A gregarious shrub, coming up on old cultivations, between 3,000 and 6,000 feet in the Sikkim hills, and often covering large tracts of land until killed down by the tree-growth which succeeds it." (*Gamble.* The Western Ghâts from the Concan southward to Ceylon.

It has stomachic and tonic properties, and is used as a febrifuge. Dr. Wight states that the leaves and tops are used in nervous and spasmodic affections connected with debility; also an infusion of them is given as a fomentation in ulcers. It may be used as an inferior substitute for cinchona in intermittent fevers; it is also employed in dyspepsia, and as an anthelmintic, and in liver diseases.

Amongst the vernacular names of this plant has been included the Mahomedan *ajsantin*, and it seems probable that this is at least one of the sources of that remedy, if not the principal source.

141

ARTHROCNEUM.

- 143 Arthrocnemum indicum, Moq., CHENOPodiaceæ.**

Syn.—*Salicornia indica*, Willd.; *Icon. 737, non R. Br. (Pharm. Ind.)*

Vern.—*Yedu-palung*, BENG.; *Umari*, TAM.; *Koyyapappili*, TEL.

A gregarious weed met with in the Sunderbunds and along the Coromandel Coast, also at Bombay.

Roxburgh urges that the preparation of "fossil alkali" or barilla from this plant should be encouraged on the Coromandel Coast, but he does not inform us whether it is actually prepared. Information of this nature as also specimens should be supplied by Madras. Compare with remarks under *Caroxylon* and *Salicornia*.

ARTOCARPUS.

- Artocarpus integrifolia, Linn., URTICACEÆ.**

Vern.—*Kanthal, kathal*, HIND.; *Panasa, Uriya*, TEL.; *Phanas, Mar.*; *Pilla*, TAM.; *Peingnai*, BURM.

A large tree, cultivated throughout India, except in the northernmost part. It grows wild in the mountain forests of the Western Ghâts, ascending to 4,000 feet. (*Beddoe*.)

The juice of the plant is applied externally to glandular swellings and abscesses to promote suppuration. The tubers, if worn on the waist, are said to cure hydrocele. The young leaves are used in skin diseases, and the root is used internally in diarrhoea.

ARUM.

- 144 Arum curvatum, Roxb., AROIDEÆ.**

Vern.—*Gérin, dor, kirkichálá, kirakal, jangálá*, PB.

This plant grows at many places in the Punjab Himalaya, from 4,000 to 6,500 feet.

It is stated to have poisonous qualities. In Kúllú the seeds are said to be given with salt for colic in sheep.

A. indicum, Roxb. See Alocasia indica, Schott.

A. speciosum, Wall.

Vern.—*Samp-ki-khumb, kiri-ki-kubri, kiralu*, PB.

Found in the Punjab Himalaya, from 6,000 to 8,500 feet.

In Hazara the root is stated to be poisonous; in Chumba it is applied pounded to snake-bites. In Kúllú, where the root is given to sheep for colic, the fruit is said to have deleterious effects on the mouth when eaten by children.

- 146 A. tortuosum, Wall.**

Vern.—*Kiri-ki-kubri*, PB.

This plant was found in Chumba at about 7,000 feet, and is much smaller in size than the preceding ones.

The root of the plant is used to kill the worms which infest cattle in the rains.

Arundo Epigejos, Linn. See Calamagrostis Epigejos, Roth., Gramineæ.

Asafoetida. See *Ferula Narthex*, *Boiss.*, UMBELLIFERÆ.

ASPARAGUS
GUM

ASAGRÆA.

Asagræa officinalis, *Lyndl.*, LILIACEÆ.

CEVADILLA OR SABADILLA.

147

A native of Mexico; imported into India.

Chiefly used in the preparation of the alkaloid Veratria.

A decoction of the plant is useful externally to destroy pediculi.

ASARUM.

Asarum europaeum, *Linn.*, ARISTOLOCHIACEÆ.

148

COMMON ASARABICA, OR FOALFOOT.

Vern.—*Tuckir*, HIND.; *Asaroon*, ARAB.; *Mootricunjayvie*, TAM.; *Chepu tutaker*, TEL.; *Tagara*, BOM.

Indigenous in temperate Europe and North Asia.

Asbestus or Asbestos.

149

ASCLEPIAS.

Asclepias curassavica, *Linn.*, ASCLEPIADEÆ.

150

CURASSAVIAN SWALLOW-WORT.

Vern.—*Kuraki*, *kakatundi*, BOM.

Indigenous in the West Indies, but quite naturalised in India. Found in Bengal and various parts of India.

The root of this plant possesses emetic properties, and hence the West Indian colonists gave to it the name of *Bastard* or *Wild Ipecacuanha*. The expressed juice of the leaves acts successfully as an anthelmintic. It is also sudorific. The juice of the flowers is said to be a good styptic.

A. gigantea, *Roxb.* See *Calotropis gigantia*, *R. Br.*, ASCLEPIADEÆ.

Ash. See *Fraxinus floribunda*, *Wall.*, OLEACEÆ.

ASPARAGUS.

Asparagus adscendens, *Roxb.*, LILIACEÆ.

151

Syn.—A. SATAWAR.

Vern.—*Khairuwa*, N. W. P.; *Muslah*, HIND.; *Shakaqul*, ARAB. AND PERS.
Sipheta musali, *dholi musali*, BOM.

Found in Rohilkund.

The tuber of this species is used as a demulcent and tonic.

Is used as a substitute for Salep.

A. filicinus, *Ham.*

152

Vern.—*Alli palli*, *saunspaur*, *sensor pali*, *satsarra*, PB.

Occurs frequently in the Punjab Himalaya, from 3,000 to 8,500 feet.

The root is considered tonic and astringent. In Kanawâr a sprig of this is put in the hands of small-pox patients as a curative measure.

ASPHODELUS
LUS.
153

Asparagus officinalis, Linn.

Vern.—*Hillooa, HIND.; Margya, BENG.*

Indigenous in Europe; cultivated in India.

According to Dr. Honigberger, the seeds are used by the hakims in debility of the stomach, also in liver, spleen, and renal disorders. Diuretic and aphrodisiac properties are also ascribed to them.

154

A. (punjabensis in Stewart's Punjab Plants).

Vern.—*Sensar pál, chuti, kuchan, sanmali.*

This plant is common in parts of the plains of the Punjab, east to the Sutlej, as well as in the Salt Range, and on the Sutlej to 5,500 feet.

A sprig of it is put in the hands of small-pox patients as a curative measure. The leaves are officinal at Lahore.

155

A. racemosus, Willd.

Vern.—*Satamuli, SANS., BENG.; Satámar, HIND.; Sháhdíqul, ARAB.; Challa, TEL.*

A climber, found all over India.

The root of this plant is used medicinally as a refrigerant, demulcent, diuretic, aphrodisiac, antispasmodic, alterative, antidiarrhoeatic and anti-dysenteric. It is used chiefly as a demulcent in veterinary medicine. Baden-Powell says that it prevents confluence of small-pox. Is used in impotence in the form of a preserve.

156

A. sarmentosus, Willd.

Vern.—*Sufed musli, HIND.; Tannis-rittan-kis, TAM.; Challa-gaddalu, TEL.; Eilara, SIND.; Shatávarī, BOM.*

A climber, found in Upper India and the Deccan.

The root is considered nourishing and aphrodisiac. Boiled with oil, it is applied to cutaneous diseases.

By hakims this plant is used for the same medicinal purposes as *Anemone tuberosa*, and is considered more efficacious than that plant. (Dr. Emerson.)

A. satawar (in Murray's Drugs of Sind). See A. adscendens Roxb.

ASPHODELUS.

157

Asphodelus fistulosus, Linn., LILIACEÆ.

Vern.—*Páni, bokhā, PB.*

Abundant as a field weed in most parts of the plains of the Punjab, so much so near Jhelam as to be troublesome to the cultivator. (*Ait-chison*)

The seed is officinal at Lahore. It is also said to be diuretic.

Aspidium Filix-mas, Swz. See Nephrodium Filix-mas, Richard, FILICES

Asteracantha longifolia, Nees, ACANTHACEÆ. See Hygrophila spinosa, T. And.

ASTRAGALUS.

Astragalus hamosus, Linn., LEGUMINOSÆ.Vern.—*Taj-badshahi, kahla, pârthâ, Hind.; Gayah-haisir, Pers.; Akhil-ul-malik, Pa.*

An annual, growing in Beluchistán, Sind, and the Punjab.

It has emollient and demulcent properties, and is useful in the irritation of the mucous membranes. The pods are officinal, and are ground to be mixed with plasters.

158

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Is laxative and used in nervous affections; made into a paste with vinegar it is employed externally in headaches. Is said to be lactagogue, and to be used in catarrhal affections. (Dr. Emerson.)

A. multiceps, Wall.Vern.—*Kandâira, kâtarkandu, pîsar, sarmâl, Pb.; Tinamî, diddani, Arc.*

Found in the West Himalayas, temperate zone, altitude 10,000 to 12,000 feet; Simla, Kumaun, and Garhwal.

The seeds are given for colic, and also for leprosy.

159

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A. stragalus? sp.A gum is exported from Persia into Bombay which Dr. Dymock regards as the true Sarcocolla of the ancients, and there would seem much to favour this idea. The gum is known as *Anzeroot*, ARAB. and PERS., *Gujar*, BOM. Meer Muhammad Husein, in his *Makhzan-ul-Adwiyâ*, describes the plant which yields this gum as a small thorny shrub known as *Shayakah*, a native of Persia and Turkistan.For some time Sarcocolla was supposed to be obtained from *Pensea* (*Sarcocolla*) *mucronata*, a native of the Cape of Good Hope. It is known, however, to come from Persia, and it cannot therefore be obtained from species of *Pensea* or (*Sarcocolla*) the species which are found in the south of Africa. Mr. Baden-Powell mentions *Pensea* in his *Punjab Products*, but, as pointed out by Dr. Dymock, Sarcocolla is entirely imported into India, coming from the Persian Gulf. Its medicinal virtues have long been much admired by the natives of India, either made into an ointment and plaster, or into a medicated oil. It is one of the chief ingredients of the Parsee bone-setter's plaster (*Lep*). It is described as aperient, and a resolvent of corrupt and phlegmatic humours, acting best when combined with Myrrabolans or Sagapenum. It is also supposed to be fattening, and is therefore eaten by the Egyptian women. This exceedingly useful gum, which is widely consumed in the East, does not seem to have attracted the attention of Europe to the extent which it deserves.

160

A. tribuloides, Delille.Vern.—*Ozdi*, Pb.

Grows in the western and central parts of the Punjab plains.

The seeds are used medicinally.

161

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A. virus, Oliver.

THE TRAGACANTHA.

The gum is officinal, being emollient and demulcent, useful in irritation of the mucous membranes, but especially of the pulmonary and genito-urinary organs.

Imported into India and sold by druggists.

162

Atis. See *Aconitum heterophyllum*, Wall., RANUNCULACEÆ.

FERRHOA.**ATROPA.****163 Atropa Belladonna, Linn., SOLANACEÆ.****DEADLY NIGHTSHADE.**

Vern.—*Sug-ungoor, Ungoor-shéfa, HIND. ; Sáchi, PB.*

A plant, found wild in Kanawár at 8,500 feet.

The officinal parts of this plant are its leaves and the dried root. They are powerfully sedative, anodyne, and antispasmodic. As an antispasmodic, it is a valuable medicine in the advanced stages of hooping cough, spasmodic asthma, laryngismus stridulus, chorea, epilepsy, and spasmodic stricture of the urethra; as a sedative and anodyne, in various forms of neuralgia, rheumatism, tetanus, hydrophobia, delirium tremens, dysmenorrhœa, and other painful uterine affections, cancerous and other painful ulcerations. In cataract and other eye affections, in which it is desirable to dilate the pupil or to keep the edge of the iris free, it is invaluable in surgical practice. In rheumatic and scrofulous iritis it is a relieving agent.

Attar of Roses. See *Rosa*, Part IV.

Aucklandia Costus, Falc. See *Saussurea Lappa, C.B.C.*, COMPOSITÆ.

AURUM.**164 Aurum.****GOLD.**

Vern.—*Zabb, ARAB. ; Tila, PERS. ; Sona, HIND.*

Is used in the form of leaf.

Used as a nervine tonic. Combined with silver leaf, arsenic, and other metals in the form of confection called *majoom*, is extensively employed by hakims.

AVENA.**165 Avena fatua, Linn., GRAMINEÆ.**

Vern.—*Gosang, kásamm, ápwa, PB.*

This is common as a field weed throughout the Punjab plains, and in many places in the Himalaya, up to 9,500 feet, Lahoul, and to 11,500 feet, Ladák.

It is believed to produce poisonous and deleterious effects.

AVERRHOA.**166 Averrhoa Bilimbi, Linn., GERANIACEÆ.****BILIMBI TREE.****167 A. Carambola, Linn.**

Vern.—*Kamaranga, HIND. ; Kamranga, BENG. ; Tamarta maram, TAM. ; Soungyah, BURM.*

A small tree, commonly cultivated in India and Burma.

"The leaves, the root, and the fruit are used as cooling medicine."—*(Amsterd. Cat.)*

AVICENNIA.

Avicennia tomentosa, Jacq., VERBENACEÆ.

168

Vern.—*Byna*, HIND.; *BENG.*; *Timmer*, SIND.; *Nalla-mada*, TEL.

Common in India in low places near the mouths of rivers, and in salt marshes. In the lower parts of the Delta of the Ganges, it grows to a tree of considerable magnitude. It is abundant on Bombay and Malabar Coasts.

The roots possess aphrodisiac properties. The unripe seeds are used as poultice to hasten suppuration of boils and abscesses.

Axungja. See *Adeps* or *Lard.*Azadirachta. See *Melia*.

AZIMA.

Azima tebracantha, Lam., SALVADORACEÆ.

169

Syn.—*MONETIA BARLERIOIDES*, L'Herit.; *Roxb. F. Ind.* III, 765; *FAUCONIA MONTANA*, Miq.Vern.—*Kántagára-kasnai*, HIND.; *Trikanta-gati*, BENG.; *Sukhapát*, DEC.; *Sung-eley*, TAM.; *Tella-upi*, TEL.; *Kundali*, SANS.

A small thorny shrub, growing plentifully in the Deccan and Ceylon; "on every part of the Coromandel, it grows freely in all situations and is in flower and fruit most part of the year." (*Roxb. F. Ind.* III, 765.)

The berries are white and are eaten; the juice of the leaves is reported to relieve the cough of phthisis and asthma.

BALANITES.

Balanites Roxburghii, Planch., SIMARUBACEÆ.

170

Syn. (?)—Only a variety of *B. AEGYPTIACA* of Africa.Vern.—*Hingan*, *ingua*, *hingol*, *hingota*, HIND.; *Hingon*, BENG.; *Garrah*, GOND.; *Nanjunda*, *nanchunta*, TAM.; *Gari*, *géra-chetiu*, *ringri*, TEL.; *Hingana*, MAR.; *Hinganabeta*, BOM.

A small thorny tree, growing in the drier parts of India, extending from Cawnpore to Sikkim, Behar, Guzerat, Kandeish, and the Deccan. It is found in Dehra Dún (*Royle*), and also in Burma.

"The seeds, bark and leaves are used in native medicine." (*Gamble*) The seeds are given in coughs. The bark, unripe fruit and leaves have anthelmintic properties attributed to them and are purgative. The bark is frequently used as a cattle medicine. The unripe drupes have strong cathartic properties.

BALIOSPERMUM.

Baliospermum montanum, Müll.-Arg., EUPHORBIACEÆ.

171

Syn.—*CROTON POLYANDRUM*, Roxb.; *C. ROXBURGHII*, Wall.Vern.—*Danti hakém*, BENG., HIND.; *Danti*, SANS.; *Habul-salatiné*, ARAB.; *Béâinju-khatai*, PERS.; *Konda-amadum*, TEL.; *Poguntig*, LEPCHA; *Fangli-jamaigota*, N. W. P.; *Jamdgoté*, BOM.

One of the commonest shrubs of North and East Bengal. It extends to South India and Burma.

BALSAMODENDRON.

The seeds are used as a drastic purgative, but in over-doses are an acro-narcotic poison ; they are sometimes used as a substitute for Croton Tiglum. They are also used externally as a stimulant and rubifacient. The oil is a powerful hydragogue cathartic and is useful for external application in rheumatism. Madden states that to the east of the Sutlej its leaves are in high repute for wounds, and its sap is believed to corrode iron. The root is considered cathartic.

Is used in dropsy, anasarca, and jaundice.

F

BALLOTA.**Ballota limbata, Benth., LABIATE.**

Vern.—*Bai, phethkanda, jandikhandiari, agshan, awanibati, Pb.**

A small prickly shrub, with yellow flowers, occurring on the Salt Range, Trans-Indus, and in the Jhelam basin, at times ascending to altitude 4,000 feet.

The juice of the leaves is applied to children's gums, and to ophthalmia in man and beast. The plant is browsed by goats. (Stewart.)

BALSAMODENDRON.

Saillion claims that by priority the correct name for this genus should be *Balsamea*. Gleditsch Engler (*Engler Bot. Jahr. I.*, p. 42) concurs in this view in his revision of the Burseraceæ. In a work on Indian Economic Botany it seems desirable, however, to follow the *Flora of British India* in all matters of synonymy.

173

Balsamodendron Kataf, Kth., BURSERACEÆ.**AFRICAN BDELLIUM.**

Syn.—*BALSAMEA ERYTHREA*, Engler.; *AMYRIS KATAF*, Forst.; *HEMPHICHA ERYTHREA*, Ehrenburg.

Vern.—*Mhatsabol* (or *Besabol*) SANS.; *Habak-Hadee* (corrupted into *kaba-ghadi*), ARAB.; *Bysabol*, BOM.

This gum resin reaches Bombay from Berbera, the purer kinds very much resembling Myrrh, with which it has been confused by many authors; Oliver refers it to *B. Playfairii*. It is paler and more reddish than Myrrh, it is but sparingly soluble in bisulphide of carbon, and the solution does not assume the violet shade characteristic of Myrrh on the addition of bromine. It has a much stronger or acrid taste and a peculiar odour quite different from that of the true Myrrh. (*Kew Report*, 1880, p. 50; *Pharmacographia*, p. 146; *Bentley and Trimen*, p. 60; *Dymock's Materia Medica of Western India*, p. 128.)

174

B. Mukul, Hook.**GUM GUGUL.**

Vern.—*Gugal*, "mukul," *ranghan turb*, BENG., HIND., DEC., and SIND; *Gogil*, HIND.; *Mohi*, *mohi-arrah*, *afshin*, ARAB.; *Bor-jahudan*, PERS.

A small tree, found to grow in the arid zone, Sind, Kattiawar, Rajputana, Khandesh.

The gum which this tree yields is called "Gugal," or Indian Bdellium. It is used in native medicine as a demulcent, aperient, carminative, and alterative; especially useful in leprosy, rheumatism, and syphilitic disorders. It is also used in nervous diseases, scrofulous affections, urinary disorders and skin diseases, and is used in the preparation of an ointment for bad ulcers.

Indian Bdellium is sometimes known by the name of *mukul*; it occurs in the form of rounded pieces, of a dull dark-red colour. It is said to be moister and therefore not so brittle as myrrh, for which it is often used as a substitute, being much cheaper. The *Pharm. Indica* states that in general practice it is found useful in the form of an ointment in cleansing and stimulating indolent ulcers, and is a favourite in the treatment of Delhi sores, when combined with sulphur, catechu and borax. *Gugul* has stimulating properties, and is sometimes given internally, especially in the treatment of horses.

Mixed with mortar it forms an excellent cement; it is soluble in potash. It is burnt as incense alone or combined with other scented substances. The plant is said to be indigenous in Sind, Rajputana, and Beluchistan; the gum exudes from incisions made in the cold season.

Applied as a hot paste to incipient abscesses, as an absorbent. Is used as an expectorant. Is aphrodisiac according to Sk. *Boali-Saina*, the "King of Hakims." Applied locally as a paste in haemorrhoids. (Dr. Emerson.)

Balsamodendron Myrrha, Nees.

175

MYRRH.

Vert.—*Bôl*, PERS.; HIND., DEC.; *Gandha-rasaha*, *kirdbol*, *bôl*, BENG.; *Bôla*, SANS.; *Mur*, ARAB.; *Mor*, HEBREW; *Vellai-pôlam*, TAM.; *Bâlim-trâpôlam*, TEL.; *Bôla*, KAN.; *Bolam*, CINGH. There are two important kinds of what may be called the tree Myrrh; these are the African, or *Karam*, and the Arabian and Siam, or *Mestiya*.

A small tree of Arabia and the African coast of the Red Sea. Often cultivated in Western India.

There are several distinct substances which, in English, go by the name of Myrrh. There is the common British herbaceous plant belonging to the family of the Carrot (*Umbelliferae*) which, in all probability, derives its name *Myrrhis odorata* from the resemblance of the smell of its fresh green stems to that of the eastern Myrrh gums. The Myrrh of the ancients is now pretty generally believed to have been the gum-resin known in India as *Heerabole* or *Myrrh*, a proportion at least of which is the produce of *Balsamodendron Myrrha, Nees.* Bdellium or *gum-gugul* is sometimes known as "False Myrrh." Some authors think that the Myrrh of the ancients was also obtained from a species of the genus *Cistus*, the Rock Rose, a genus not represented in India. This idea is chiefly based upon the fact that the gum obtained from that plant is known at the present day by the name of "*Ladanum*," a word supposed to be the same as the Hebrew "*Lât*" which has been translated as Myrrh. If this be correct, two distinct gum-resins have come to bear the same name in translations from the Hebrew writers.

Of the Myrrh of commerce there are two or three distinct varieties, and under each an assortment of stuffs of different commercial value. There is the east coast African Myrrh known in Bombay as *Karam*, and the south Arabian and Siam Myrrh, the *Mestiya*. Myrrh of good quality is also sent from Persia. The latter two forms are really only substitutes, however, for Myrrh. The *Karam*, obtained from Africa, may be said to be the true commercial Myrrh, but it is by no means proved that this is entirely obtained from *B. Myrrha, Nees.* The principal mart for Myrrh is in Bombay; the chief firms having their agents at Aden and Mukalla. These agents attend the great annual fair at Berbera, and exchange English and Indian goods for Myrrh and Bdellium. The bags of these, on arriving at Bombay, are said to contain, 1st, a large proportion of roundish masses of fine Myrrh; 2nd, a considerable proportion of small semi-transparent pieces of Myrrh; 3rd, numerous pieces of

**BALSAMO-
DE DIBERON.**

dark-coloured Myrrh, mixed with refuse; 4th, a small proportion of opaque gum-resin (*Gimbourt Bdellium*). The packages are assorted, the best qualities are re-shipped for Europe, as also the darker pieces, declared as second quality, while the refuse is exported to China. The best qualities of Karam Myrrh sell for Rs. 34 per maund of 37 lbs.; *Mestiya*, Rs. 16 to 25, and the so-called refuse, Rs. 8 per maund. (*Dymock's "Vegetable Materia Medica," Part I.*)

Myrrh is chiefly adulterated with inferior qualities, or with the gums and resins derived from other species of *Balsamodendron*, such as *B. Mukul*, *Hook.*; *B. pubescens*, *Stocks*; *B. Opobalsamum*, and sometimes also with *B. Roxburghii*, *Arn.*

Myrrh is beneficial in dyspepsia, amenorrhœa and chlorosis, and is a useful stimulant and astringent to all ulcerations or congestions of the mucous membrane. It is a useful application to old, foul and indolent ulcers, and a valued wash for the mouth and gums and a gargle in ulcerated sore-throat. (*Rai K. L. De, Bahadur.*) It is a stimulant expectorant, much admired as a remedy for pulmonary affections, especially the asthma of the aged. (*Ind. Pharm.*) Meer Mahomed Husain says it is hot and dry, and that the best quality when broken shows white marks like those at the root of the finger-nails. Internally it is regarded as tonic and antispasmodic. Hakims use it for intestinal worms. It is "detergent, siccative, astringent, and aperient, a disperser of cold tumours, and one of the most important of medicines, as it preserves the humours from corruption." "Dissolved in women's or asses' milk it is dropped into the eye in purulent ophthalmia." (*Dymock.*) It is said to cause abortion, and is useful in fever and epilepsy. It is an ingredient in *Decocum Aloes*, Comp.; in *Mistura Ferri*, Comp.; in *Pilula Aloes et Myrrhae*; in *Pilula Assafetidæ*, Comp.; and in *Pilula Rhei*, Comp. It is also made into *Tinctura Myrrhae*, P. B.

Dose in pill, powder or emulsion, 10 to 30 grains; of tincture $\frac{1}{2}$ to 1 fl. drachm.

176 Balsamodendron Opobalsamum, Kunth.**BALSAM OR BALM OF GILEAD.**

Vern.—Balasán, ARAB., PERS.; Habbula bálesá, BOM. The gum-resin—Udbálesá, PERS., BOM.

A small-branched tree found on both sides of the Red Sea south of 22° north latitude. It is also recorded from several places on the Nubian Coast and in Abyssinia. It is met with on the Asiatic side at Ghizandad in Arabia, at Aden and Yemen. It is in all probability introduced into Palestine.

"The fruit is considered to be a powerful carminative and digestive; it is also praised as a stimulant expectorant, and is usually administered in combination with tragacanth." (*Dymock.*)

Mixed with oil of roses, balsam is used in ear-ache. Made into a paste with lard it is applied locally in scrofulous and cancerous sores. (*Dr. Emerson.*)

177 B. pubescens, Stocks.**Vern.—Bayi, bai, BELUCH.**

A small tree of Beluchistán and the hills separating that country from Sind as far south as Karáchi.

Dr. J. Newton reports that the gum obtained from this tree may be used in the form of ointment for cleansing and stimulating bad ulcers. It is a favourite application in Delhi sores, combined with sulphur, catechu, and borax; it is reported to stimulate healthy action.

Balsamodendron Roxburghii, Arn.

Vern.—*Gugala*, BENG.; *Gugal, mhaishabola*, BOM.; *Kookul*, TAM.

A small tree of East Bengal and Assam.

Birdwood mentions this plant in his list of drugs, but gives no information as to its medicinal properties. It yields a gum-resin of a greenish colour, moist and easily broken, having a peculiar Cedar-like odour. It is largely supplied to the Bombay market from Oomrestee, and is much used by masons to mix with fine plaster. (Dymock.)

178

BAMBUSA.

179

Bambusa arundinacea, Retz., GRAMINEÆ.

Vern.—*Vansa*, SANS.; *Nai-bingi, tēbāshir*, PERS.; *Tabashir*, ARAB.; *Magar, nai*, PB.; *Bans*, BENG., HIND.; *Mandgay*, BOM.; *Mangil*, TAM.; *Kyakat-wa*, BURM.

This plant is found everywhere in India.

The deposits found inside, called *Bansolochan*, are supposed to be efficacious in paralytic complaints, flatulency, and poisoning cases. It is highly prized in native practice as a stimulant and aphrodisiac. It is supposed to be cool and to remove thirst, and therefore useful in fever, jaundice, and pulmonary affections.

There are two varieties sold in the bazars, a white and a bluish-white. Mixed with honey it is used locally in aphthæ. Some hakims say that if this drug be used for any length of time it is apt to induce impotence. (Dr. Emerson.)

Barberry. See Berberis vulgaris, Linn., BERBERIDEÆ.**BARLERIA.**

180

Barleria cristata, Linn., ACANTHACEÆ.

Vern.—*Gorjiba, kila-bána*, N. W. P.

A small elegant shrub, often met with in gardens, and found wild on the sub-tropical Himalaya and on the mountains of Madras, at an altitude of 4,000 feet.

The seeds are supposed to be an antidote for snake-bite, and the roots and leaves are used to reduce swellings, and an infusion is given in coughs.

B. prionitis, Linn.

181

Vern.—*Katsareyá*, HIND.; *Kantajáti*, BENG.; *Kalsunda, vajradanii*, BOM.; *Shemmuli varmuli*, TAM.; *Karuntaka*, SANS.

A small bushy plant, met with in Bombay, Madras, Assam, Sylhet, and Ceylon. The sap of the leaves is applied to the soles of the feet to prevent cracking.

BAROSMA.

182

Barosma betulina, Bart. et Wendl., RUTACEÆ.**THE BUCHEE.**

A native of South Africa: the dried leaves are imported into India and sold by all chemists. In addition to the above species the drug is obtained also from *B. crenulata*, Hook.; *B. serratifolia*, Willd.

It is aromatic, stimulant, and tonic, chiefly used in disorders of the genito-urinary organs.

BARRINGTONIA.

183

Barringtonia acutangula, Gaertn., MYRTACEÆ.

Vern.—*Ijal, samundar phal, panniar, ingar, HIND. ; Hijal, sumandar, BENG. ; Kinjolo, URIVI, Hindol, Ass. ; Samudraphala, BOM. ; Kyaitha, kyaines, BURM.*

A moderate-sized evergreen tree of the Sub-Himalayan tract, from the Jumna eastward; Oudh, Bengal, Central and South India, and Burma.

The leaves and the fruit are used in native medicine. The root is bitter and supposed to be similar to Cinchona in its properties. It is also held to be cooling and aperient. The seeds are very warm and dry, used as an aromatic in colic and in parturition; also in ophthalmia.

184

B. racemosa, Blume.

Vern.—*Samudra, cuddapah, TAM. ; Samudra phal, BENG. ; Ijjul, HIND. ; Kyai-beng, BURM.*

A moderate-sized evergreen tree of the Western Coast, Andaman Islands, and Ceylon.

The root of the plant resembles Cinchona in medicinal virtues. It has deobstruent and cooling properties. The fruit is efficacious in coughs, asthma, and diarrhoea. The seeds are used in colic and ophthalmia.

BASELLA.

185

Basella alba, Linn., CHENOPODIACEÆ.

WHITE MALABAR NIGHT SHADE.

Vern.—*Myal-ka-bhaje, HIND. ; Poi, SIND.*

A twining perennial, common in Sind, Punjab, and Conkan.

Murray mentions this plant amongst his drugs, but says nothing about its medicinal properties.

186

B. rubra, Linn.

Vern.—*Pol, HIND. ; Rukto-pooi, BENG. ; Alla-batsalla, TEL.*

Met with in Bengal and the Peninsula.

The juice of the leaves is used in native practice in catarrhal affections of children.

BASSIA.

187

Bassia butyracea, Roxb., SAPOTACEÆ.

Vern.—*Chiéra, chaura, phulel, KUMAUN ; Cheuli, OUDH ; Phelwara, HIND. ; Chapi, NEPAL ; Yel, yelpote, LEPCHA.*

A deciduous tree of the Sub-Himalayan tract, from Kumaun to Bhutan, between 1,500 and 4,500 feet.

It is medicinally used as an ointment in cases of rheumatism. The butter is an excellent emollient for chapped hands, &c., during the winter months.

188

B. latifolia, Roxb.

Vern.—*Mahwa, mowa, mahâla, HIND. ; Mahwa, mahâla, maw, BENG. ; Darakhte-gulchakane-sakrate, PERS. ; Illupi, kat illipi, TAM.*

A large deciduous tree, indigenous in the forests of Central India. Cultivated and self-sown all over India.

The flowers are used in coughs in the form of a decoction. The medicinal properties attributed to this plant are stimulant, demulcent, and emollient, heating, astringent, tonic, and nutritive. The seeds yield, on expression, a thick concrete oil, which is recommended to be applied to the head in cephalalgia. The spirit distilled from the flowers proves very deleterious, exciting gastric irritation and other unpleasant effects. The residuum or cake left after the expression of the oil is employed as an emetic.

Bassia longifolia, Willd.

189

THE MOWA TREE.

Vern.—*Moha, mohva, HIND.; Mohuva, BENG.; Darakheto-gulcha-kana, PERS.; Kat illupi, clupa, TAM.; Ippi, yoppa, pinna, TEL.; Kan sunu, BURM.*

A large evergreen tree of South India and Ceylon.

It is medicinally used as astringent and emollient. Like the preceding it yields two important products—a fixed concrete oil and a spirit, the former obtained by expression from the seeds, the latter by distillation from the flowers.

BATATAS.

Batatas edulis, Chois. See Ipomoea Batatas, Lamk., CONVOLVULACEÆ.

B. paniculata, Chois. See Ipomoea digitata, Linn.

BAUHINIA.

Bauhinia purpurea, Linn., LEGUMINOSEÆ.

190

Vern.—*Koival, karar, karalli, PB.; Koliar, kanden, sona, HIND.; Rakta kanchan, BENG.; Pedda aré, TAM.; Mahalay kari, BURM.*

A moderate-sized deciduous tree of the Sub-Himalayan tract, from the Indus eastward; Central and South India, and Burma.

The bark of this plant is astringent, the root carminative, the flowers laxative.

B. racemosa, Lam.

191

Syn.—*B. PARVIFLORA, Vahl.*

Vern.—*Kosundra, taur, PB.; Kachnal, gárial, ashta, makkuna, HIND.; Ati, archi, areku, TAM.; Hpalan, BURM.*

A small deciduous tree of the Sub-Himalayan tract, from the Ravi eastward, ascending to 5,000 feet; Oudh, Bengal, Burma, Central and South India.

The gum of this plant is used medicinally in South India. (J. L. Stewart.)

B. retusa, Ham.

192

Vern.—*Kurd, PB.; Kandla, kanalla, HIND.; Nirpa, GONDI and TEL.*

A moderate-sized deciduous tree on the North-West Himalaya, from the Beas eastward ascending to 4,500 feet; Central India.

The gum is used as a medicine either alone or in combination with other medicines. The annual export from Dehra Dún is about 2,500 maunds.

Is used as an external application to sores. It is considered as an emmenagogue and diuretic by some native practitioners. (Dr. Emerson.)

BENINCASAE.
103

Bauhinia tomentosa, Linn.

Vern.—*Kachnar, HIND.; Kanchini, TAM., TEL.; Maka-kla-ga-wa, BURM.*

A shrub or small tree of South India.

As a medicine, the plant is antidysenteric, anthelmintic, and useful in liver complaints. Ainslie says that the dried buds and young flowers of this plant are prescribed in dysenteric affections. According to Rheede the decoction of the root-bark is useful in inflammation of liver.

Applied locally in aphthæ. The fruit is diuretic; an infusion of the bark is used as an astringent gargle. The seeds made into a paste with vinegar are said to be efficacious as a local application to wounds inflicted by poisonous animals. (Dr. Emerson.)

104

B. Vahlii, W. & A.

Vern.—*Taur, PB.; Malghan, maljan, maiu, HIND.; Sihdr, madl, C. P.; Borla, NEPAL; Cheher, BENG.; Shioli, URIYA; Adda, TAM.; Chamboli, DEC.*

Found in the Sub-Himalayan tract from the Chenab eastward, in North and Central India, and in Tenasserim.

This plant possesses tonic and aphrodisiac properties.

105

B. variegata, Linn.

Vern.—*Kachnar, kolar, padrian, barial, HIND.; Taki, NEPAL.; Rakta-kanchan, BENG.; Borara, URIYA; Segapu-munthari, TAM.; Bway cheng, BURM.; Kanchan, BOM.*

A moderate-sized deciduous tree of the Sub-Himalayan tract, from the Indus eastward, and throughout the forests of India and Burma.

The root in decoction is given in dyspepsia and flatulency; the flowers with sugar as a gentle laxative; and the bark, flowers, or root triturated in rice-water as a cataplasm to promote suppuration. The bark is described as alterative, tonic, and astringent, useful in scrofula, skin diseases, and ulcers. It is also used to remove intestinal worms and to prevent the decomposition of the blood and humours; on this account it is useful in leprosy and scrofula.

106

Bear's Grease.

Used medicinally as an emollient in rheumatism.

BEGONIA.

107

Begonia, sp., BEGONIACEÆ.

Several species such as *B. selhetensis*, *C. B. Clarke*; *B. picta*, *Son.*; *B. rubro-venia*, *Hook.*; *B. laciniata*, *Roxb.*; *B. Rex*, *Putzey*. The juice kills leeches, and may therefore be used to kill leeches in the nostril. See *Anagallis arvensis*, *Linn.*, and Leeches.

Belladonna. See *Atropa Belladonna*, *Linn.*, SOLANACEÆ.

BENINCASA.

108

Benincasa cerifera, Savi., CUCURBITACEÆ.

THE WHITE MELON.

Syn.—*CUCURBITA PEPO*, *Roxb.*, includes this plant as well as *C. PEPO*, *DC.*

Vern.—*Kumrâ, BENG.; Kumra, pethâ, bhâtîd, HIND.; Kumbuli, TAM.; Budidi gummadi, TEL.; Kushmânda, SANS.; Koholen, golkadu, BOM.*

A climbing plant, cultivated all over India; frequently upon the roofs of huts. Supposed to be originally a native of Japan and Java.

To distinguish it from *Cucurbita Pepo*, *DC.*, the following characters may be given: *Male*, flowers large, solitary, petals 5, nearly free, stamens 3, inserted near the mouth of the tube, anthers free, exserted; fruit 1 to 1½ feet, cylindric, without ribs, hairy when young, and bright green, ultimately becoming smooth and covered with a bluish-white waxy bloom, flesh white.

The fruit possesses alterative and styptic properties, and is popularly known as a valuable antimercurial. It is also said to have cooling properties. It is considered tonic, nutritive and diuretic, and a specific for haemoptysis and other haemorrhages from internal organs. The *fresh juice* from the fruit given internally, while a slice of the fruit is at the same time applied to the temples, is said to be an efficacious cure for internal haemorrhage. According to the Sanskrit authors, it is useful in insanity, epilepsy, and other nervous diseases; the fresh juice is given either with sugar or as an adjunct to other medicines for these diseases. (*U. C. Dutt.*)

Is used extensively as a preserve by natives.

Benzoinum or Benzoin. See *Styrax Benzoin*, *Dryand*, *STYRACÆ*.

BERBERIS.

Berberis aristata, *DC.*, *BERBERIDÆ*.

THE INDIAN BARBERRY.

Vern.—*Sumi*, *simlu*, *chitra*, *Pb.*; *Chitra*, *NEPAL*; *Chatra*, *HIND.*

An erect, spinous shrub, on the outer Himalaya, from the Sutlej to Bhutan; in the North-West Himalaya 6,000 feet to 10,000 feet; in Darjeeling above 10,000 feet; Western Ghâts at high elevations; Ceylon. (*Gamble.*)

The fruit is given as a cooling laxative to children. The stems are said to be diaphoretic and laxative in rheumatism. The dried extract of the root is extensively used as a purgative for children, and especially as an application in ophthalmia. It is also an excellent application for sun-blindness. The root-bark abounds in the bitter principle, and acts as a tonic and antiperiodic. It is a valuable medicine in intermittent and remittent fevers, and in general debility consequent on fevers. It is also used in native practice internally as a stomachic and in diarrhoea, &c.

The berries should be useful as an antiscorbutic.

B. asiatica, *Roxb.*

Vern.—*Kilmara*, *KUMAUN*; *Môte kissi*, *chitra*, *NEPAL*.

Dry valleys of the Himalaya, altitude 3,000 to 7,500 feet; from Bhutan to Garhwal, Behar, or hill Parasnath, altitude 3,500 feet.

The medicinal properties of this plant are similar to those of the preceding one.

B. Lycium, *Reyle.*

Vern.—*Kasmal*, *SIMLA*; *Kashmal*, *chotra*, *HIND.*

An erect, rigid shrub of the North-West Himalaya, from 3,000 to 9,000 feet.

The medicinal extract from the root, known under the name of *Rasout*, is highly esteemed as a febrifuge and as a local application in eye diseases. In chronic ophthalmia it has been used with success when combined with opium and alum. Dr. O'Shaughnessy expresses his opinion on the medicinal uses of this drug in the following terms:

BIXA.

"*Rasout* is best given as a febrifuge in half-drachm doses, diffused through water, and repeated thrice, or still more frequently, daily. It occasions a feeling of agreeable warmth at the epigastrium, increases appetite, promotes digestion, and acts as a very gentle but certain aperient. The skin is invariably moist during its operation."

202 *Berberis vulgaris, Linn.*

BARBERRY.

Vern.—*Bedana, PERS.; Ambar-baris, ARAB.; Zirishk, kashmal, chachar, PERS.*

A deciduous thorny shrub on the Himalaya, from Nepal westward, in shady forests, above 8,000 feet; Afghánistán and Beluchistán, Europe.

The Barberry is regarded as officinal in the Punjab, being given as diuretic, and for the relief of heat, thirst, and nausea. It is astringent, refrigerant, and antibilious:

The fruit is used as a preserve in Afghánistán.

Bergera Koenigii, Linn. See *Murraya Koenigii, Spreng.*, RUTACEÆ.

Berthelotia ancolata. See *Piuea lanceolata, Oliv.*, COMPOSITEÆ.

BETA.

203 *Beta vulgaris, Mill., CHENOPODIACEÆ.*

Vern.—*Bit palang, BENG.*

Largely cultivated in Bengal and Upper India.

The seeds have cooling and diaphoretic properties. Bellew says that the fresh leaves are applied to burns and bruises.

BETULA.

204 *Betula Bhojpattra, Wall., CUPULIFERÆ.*

THE BIRCH TREE.

Vern.—*Burj, bursal, bhuj, PB.; Shák pād, phatah, tabpa, HIMALAYAN NAMES; Bhujpattra, HIND.; Phuspat, NEPAL; Bhója patra, BOM.*

A moderate-sized deciduous tree on the higher ranges of the Himalaya, forming the upper edge of arborescent vegetation.

The bark of the black Birch is valuable for its aromatic and antiseptic properties. (Murray.)

Bhang. See *Cannabis sativa, Linn.*, URTICACEÆ.

Bile of certain animals. See *Fei*.

Bitch or Bish. See *Aconitum ferox* and *Napellus, Wall.*, RANUNCULACEÆ.

Bitter sweet. See *Solanum Dulcamara, Linn.*, SOLANACEÆ.

BIXA.

205 *Bixa Orellana, Linn.*, BIXINÆ.

Vern.—*Lathan, HIND., BENG.; Yarat, Ass.; Kuragu, TAM.; Sendree, BOM.; Thesdin, BURM.*

A middle-sized tree, found in South India, Bengal, and Burma.

Medicines:

Astringent and slightly purgative, also a good remedy for dysentery and kidney diseases. The pulp (a well-known colouring matter) surrounding the seeds is astringent. (Roxburgh.) The seeds are cordial, astringent, and febrifuge. (Lindl.)

Bloodwood, Indian, or Jarul. See *Lagerstromia Flos-Regiae*, *Rets.*, LYTHRACEAE.

BLUMEA.

Blumea aurita, DC. See *Laggera aurita*, *Schultz-Bip.*, COMPOSITAE.

B. balsamifera, DC., COMPOSITAE.

Syn.—*Conyzza balsamifera*, Linn.

Vern.—

A sub-bushy plant met with on the tropical Himalaya from Nepal to Sikkim, altitude 1,000 to 4,000 feet, extending to Assam, Khásia Hills, Chittagong, Burma, and the Straits. The whole plant smells strongly of camphor, which may indeed be prepared from it. A warm infusion acts as a pleasant sudorific, and it is a useful expectorant as a decoction. Dymock says that in Bombay the vernacular name *bhambara* is a generic term for all *Blumeas*.

B. densiflora, DC.

Syn.—*B. GRANDIS*, DC.

Vern.—*Pung-ma-theing*, BURM.

Found in tropical Himalaya, Sikkim and Assam, Mishmi and Naga Hills, and Khásia Mountains; also met with in the Tenasserim Province.

A few years ago Mr. E. O'Riley prepared camphor from this plant which was pronounced identical with that imported from China. For medicinal properties see Camphor.

B. lacera, DC.

Vern.—*Kakronda, angli-muli*, HIND.; *Kukursungha, bura-saksang*, BENG.; *Kamafitus*, ARAB.

A common weed throughout the plains of India from the North-West, ascending to 2,000 feet in the Himalaya, to Travancore and Singapore, and in Ceylon.

It is exceedingly difficult to determine this plant when young. Roxburgh says it smells of turpentine. The yellow flowers at once separate it from *Laggera aurita*, with which it has been confused. Dymock says of this plant: "I am inclined to identify *kakronda* with *B. lacera*." This opinion is supported by the fact that the author of the *Makhzan* describes the flowers of *kakronda* as yellow. Moodeen Shariff refers *kakronda* to *Blumea* (*Laggera*) *aurita*, a plant with pink flowers.

It is used as a febrifuge, and also to stop bleeding, being regarded as deobstruent and stimulant.

Mixed with black pepper it is given in cholera. An astringent eye-wash is made from the leaves.

Boerhaavia diffusa, Linn., NYCTAGINACEAE.

Syn.—*B. DIANDRA*.

Vern.—*Ghôda purna*, BENG., HIND.; *Smadika*, SANS.; *Mularatto-hira*, TAM.; *Atika mamedi*, TEL.; *Punarnavâ*, BOM.

A troublesome weed, found all over India.

The root, used in infusion, acts as a laxative, diuretic, anthelmintic, and cooling medicine. It has been also found a very good expectorant

BORAX.

and prescribed in several cases of asthma with marked success. Taken in large doses it acts as an emetic. A poultice of the leaves is reported to be useful in abscesses.

BOMBAX³

- 210** *Bombax malabaricum*, DC., MALVACEÆ.

Syn.—*SALMALIA MALABARICA*, Shott.

Vern.—*Semul*, *shembal*, *semur*, HIND.; *BENG.*; *Simbal*, *shirlan*, HIMALAYAN NAMES; *Bonro*, *URIYA*; *Ilavam*, *puli*, TAM.; *Katm-ismbal*, CINGH.; *Letjan*, BURM.

A very large deciduous tree, found throughout India and Burma.

The gum or dried juice, *mocha-ras*, which the tree yields, is used as an aphrodisiac. The root has stimulant and tonic properties. The bark and the root are emetic. The young roots dried in the shade and powdered form the chief ingredient in the *más-la-semul*, a medicine highly thought of as an aphrodisiac; it is also given in impotence. The gum contains a large proportion of tannic and gallic acids, and may be successfully employed in cases requiring astringents. The gum has also tonic and alterative properties, and is used in diarrhoea, dysentery, and menorrhagia.

Bonduc. See *Cesalpinia Bonducella*, Roxb., LEGUMINOSÆ.

BORASSUS.

- 211** *Borassus flabelliformis*, Linn., PALMÆ.

THE PALMYRA TREE.

Vern.—*Tál*, *tala*, *tár*, HIND.; *Tál*, *BENG.*; *Darakhte-tare*, PERS.; *Panam*, *pannie*, TAM.; *Tad*, *Guz.*; *Htan*, BURM.

A large tree, cultivated throughout tropical India and beyond the tropics, in Bengal, and the southern part of the North-West Provinces.

The juice of this plant is used as a stimulant and antiphlegmatic. The ash of the dry spadix is used as an *antacid* in heartburn. The saccharine juice, when freshly drawn, is exceedingly sweet, and, if taken regularly for several mornings in succession, acts as a laxative. The light-brown, cotton-like substance from the outside of the base of the fronds, is employed by the Cinghalese doctors as a styptic to arrest haemorrhage from superficial wounds. The fresh juice is also useful in inflammatory affections and dropsy.

Vinegar, toddy, and a spirituous liquor are made from this tree. The juice slightly fermented is used in diabetes. The ash of the spadix is given internally in bilious affections. This ash is also used in preparing dyes. (*Dr. Emerson.*)

BORAX.

- 212** *Borax.*

Vern.—*Sakdga*, *BENG.* and *HIND.*; *Tankana*, *SANS.*

Brought from Tibet across the Himalaya and also from Nepal. It is used as an astringent in medicine, and largely so as a lotion in the cure of hot eruptions on the body. It is often criminally used in order to procure abortion. It is also largely consumed in the arts.

BOSWELLIA.

Boswellia serrata, Roxb., BURSERACEÆ.

THE INDIAN OLIBANUM.

Syn.—*B. THURIFERA, Roxb.*

Vern.—*Salhe, salei, salga, HIND.; Guggar, dámśal, KUMAUN; Salat, BENG.; Kéndár, ARAB.; PERS.; Kungli, gugulu, morada, TAM.; Chittu, KAN.; Gugala, sálaya-dhoop, BOM.*

A moderate-sized gregarious tree of the intermediate, northern, and southern dry zones, Sub-Himalayan tract from Sutlej to Nepal, drier forests of Central India from Berar to Rajputana, and southward to the Deccan and to the Circars and the Konkan.

The gum of this tree is used as a diaphoretic and astringent, and is used in the preparation of ointment for sores. It is also prescribed with clarified butter in syphilitic diseases; with cocoanut oil for sores, and as a stimulant in pulmonary diseases. The Olibanum is also given in bronchorrhœa and chronic laryngitis, employed both internally and in the form of fumigation. An ointment has been prepared from it which is said to be a good stimulant application to carbuncles, ulcerations, boils, &c. The Muhammadans consider it hot and dry, and to have dessicative, astringent, and detergent properties. (*Dymock*)

The resin in tears is known as *kandur*, but in soft masses it is called *gundah-férosah*. (*Moodeen Shariff*.) Mixed with gum acacia it is used as a corrective for foul breath. Used for any length of time in 3i doses it is said to reduce obesity.

BOUCEROSIA.

Boucerosia ancheriana, Don, ASCLEPIADEÆ.

214

Vern.—*Charángli, chungi, pawanne, pamanke, PB.*

Found in the western part of the outer Himalaya, in the Salt Range, and Trans-Indus, to 3,000 feet.

The juicy stems are considered stomachic, carminative, and tonic. *Bellow* states that they are also used as vermicide, and *Masson* mentions that, dried and powdered, they are taken as stimulants.

Brachyramphus sonchifolius, DC. See LACTUCA REMOTIFLORA, DC., COMPOSITÆ.

215

BRAGANTIA.

Bragantia Wallichii, R. Br., ARISTOLOCHIACEÆ.

The juice of the leaves is used as an antidote for snake-bite.

BRASSICA.

Brassica campestris, Linn., CRUCIFERA.

216

Var. 1. *campestris, proper.*

THE COLZA, SWEDISH TURNIP, and SARSON.

Syn.—*SINAPIS DICHOTOMA, Roxb.*

Vern.—*Sarson or sorsón, sursi, jariya, HIND.; Sarshapa, SANS.; Sursha or surzi, sauchi, kali sarson, sadarai, BENG.*

Cultivated all over India.

The seeds are small, smooth, light brown.

BRASSICA.

Cobra oil, used chiefly to anoint the body by the natives of India and for illuminating purposes. I am inclined to think a serious error has been committed by European authors in regarding this as identical with *S. glauca*, Roxb. The latter plant yields a decidedly superior oil, and both seed and plant are immediately distinguished by the most ordinary native, and their properties narrated with a precision which indicates centuries of experience.

"It is less energetic than black mustard; considered by natives hot and useful in disorders of the mouth and in worms. It is used by Europeans as a rubefacient externally, and an emetic and purgative internally in large doses; as a tonic and stimulant in smaller doses. Principally used as an emetic in cases of poisoning, especially by opium and alcohol; also in apoplexy and epilepsy, as a tonic in dyspepsia and fevers." (Baden-Powell.) "Mustard oil is largely used as an article of diet, and when applied to the skin is considered to keep it soft, cool, and clean, and to promote the growth of hair. Internally, the Hindus use mustard combined with other stimulants in dyspepsia and as an emetic. The Muhammadans consider mustard to be hot and dry, and to have detergent and digestive properties." (Dymock.) It is not possible to know what should be regarded as Mustard oil, and it may be incorrect to quote these passages under *B. campestris*, although described under that name by the authors quoted.

217

Var. 2. Napus.

THE RAPE, RARA-SARSON, OR SHWET-RAI.

Syn.—SINAPIS GLAUCA, Roxb.

Vern.—Rara sarson, rara lai, pila sarson, tote, toriya, dain, sheta, shirsha, HIND.; Tuverica, SANS.; Shwet-rai, BENG.

The seeds are larger than those of the preceding form, smooth and white.

The oil is superior to the preceding, and is much used in diet.

218

Var. 3. Rapa.

THE TURNIP.

Vern.—Shalgam, HIND., BENG.

The oil has been prepared, but is of no value.

219

Brassica juncea, H. f. & T.

Syn.—SINAPIS JUNCEA, Linn.

Vern.—Rai, sarson, rajika, HIND.

Cultivated in India abundantly; westward to Egypt, and eastward to China. This is in fact the plant which in India bears the name of Mustard.

"The seeds commonly met with in the bazars of India, which, from their colour, may be denominated *Brown Mustard Seed*, possess properties similar to those of the Black and White Mustard Seed, for which they may be employed as an efficient substitute, especially in the preparation of mustard poultices." (Pharm. of Ind.)

The seeds are small, round, black or deep brown, and pitted or rugose, about 15 to 20 occurring in each pod. The seeds, whole or broken, are often used to flavour curries. Ground into flour they are largely used instead of, or to adulterate, the true or European mustard flour. The oil prepared from the seeds of this plant is that which seems to be most frequently prepared and sold under the name of mustard oil.

Brassica nigra, Koch.**THE BLACK OR TRUE MUSTARD.**

Vern.—*Rai, kali rai, as-i-rai, ghor-rai, makara-rai, &c., HIND.; Rai, varicha, BENG.; Kadagho, TAM.; Avalo, TEL.; Ganaba, CINAH.; Kiditsai, CHINESE; Rajika, sanshap, SANS.: Sirshaf* (the name by which it is known in Indian hospitals), PRES.; Khurdal, ARAB.

Cultivated in various parts of India and Tibet, chiefly on the hills.
The seeds are large, oblong, smooth, almost black.

A bland oil is expressed from the seeds, used for various economic purposes. About 23 per cent. is usually extracted from the seeds. The oil is inodorous, non-drying, and solidifies at 0° F. It consists essentially of glycerides of stearic, oleic, erucic, and brassic acids, the last being homologous with oleic acid.

The ancient Hindus do not appear to have known about the essential oil of mustard. The oil does not exist in the seeds originally, but is chemically produced by the action of water, as, for example, when a seed or a little of the flour is put in the mouth. Chemically, mustard seeds consist of a bland fixed oil (obtained by pressure), and a peculiar inodorous substance called *Myroxic acid*, together with a third substance, which has been called *Myrosyne*. By the action of water upon these substances the essential oil is produced, which is known chemically as *Pyrosyne*.

The seeds of this plant are used in medicine as poultice, being a useful and simple rubefacient and vesicant. Mustard poultices prove highly serviceable in cases of febrile and inflammatory diseases, internal congestions, spasmodyc, neuralgic, and rheumatic affections. Mustard flour in water is highly recommended as a speedy and safe emetic.

The seeds or flour act as a digestive condiment if taken moderately.

Brassica oleracea, Linn.**THE CABBAGE AND ITS ASSOCIATES.**

Vern.—*Kopi, BENG.; Gobi, HIND.*

A much-valued cold season vegetable, introduced by the Europeans into India. A large, coarse form, extensively cultivated by the natives, has become perfectly acclimatised, and the early cabbages met with in the market are the young heads of this plant.

The seeds are diuretic, laxative, stomachic, and anthelmintic. The leaves form a good application in gout and rheumatism.

BRAYERA.**Brayera anthelmintica, Kunth., ROSACEÆ.**

Native of Abyssinia; imported into India, and sold by druggists.
The dried flowers and tops are anthelmintic.

BRIEDELIA.**Briedelia montana, Willd., EUPHORBIACEÆ.**

Vern.—*Kargnalia, khaja, goia, HIND. Asáná, MAHR.; Kaisho, Ass.; Patinga, TEL.; Asáno, BOM.*

A moderate-sized deciduous tree of the Sub-Himalayan tract, from the Jhelam eastward, ascending to 4,000 feet; Oudh, and Bengal.
Reported to possess astringent and anthelmintic properties.

BRYO-**HYLLUM.** *Briedeliaretusa*, Spreng.

224

Vern.—*Pathor, mark, Ph.*; *Khaja, hassi, HIND.*; *Lamkana, angnera, RAJPUTANA*; *Koti, URIYA*; *Mulwengay, hamanji, TAM.*; *Tschyee, BURM.*

A large deciduous tree of the Sub-Himalayan tract, from the Chenab eastward, ascending to 8,600 feet; Oudh, Bengal, Central and South India, Burma, especially in Assam, the Circars, and Travancore.

The bark possesses medicinal properties similar to the preceding.

Broom. See *Cytisus scoparius*, Linn., LEGUMINOSÆ.

Brucea (? *Nima*) *quassoides*, Ham. See *Picrasma quassoides*, Benn.

BRUNELLA.

225

Brunella (Prunella) vulgaris, Linn., LABIATE.

Vern.—*Aastakhadus, Ph.*; *Ustakhdus, SIND.*

A small-branched erect or creeping herb of the Himalaya, from 3,000 to 10,000 feet.

It is regarded by the Punjab Himalayan hill tribes as expectorant and antispasmodic.

BRYONIA.

Bryonia epigaea, Rottl. See *Corallocarpus epigaea*, Hook. f., CUCURBITACEÆ.

226

B. laciniosa, Linn.

Vern.—*Gargo-naroo, HIND.*; *Kawale-che-dole, Bom.*

A climbing plant with a smooth stem, extending from the Himalaya to Ceylon and Pegu.

"The whole plant is collected when in fruit for medicinal use. It is bitter and aperient, and is considered to have tonic properties." (Dymock.)

B. scabrella. See *Mukia scabrella*, Arn., CUCURBITACEÆ.

BRYOPHYLLUM.

227

Bryophyllum calycinum, Salisb., CRASSULACEÆ.

Syn.—*KALANCHÉ PINNATA*, Pers.; *COTYLEDON RHIZOPHYLLA*, Roxb.

Vern.—*Ahiravana, mahiravana, ghayamári, Bom.* The Mahomedans call it *Zakhinhye*.

A small succulent plant, with thick, fleshy leaves, from the crenulations of which in contact with the ground bulbules are produced which develop into new plants. Common throughout Bengal and the hotter and moist parts of India to Ceylon and Malacca.

"The leaves slightly toasted are used by the natives as an application to wounds, bruises, boils, and bites of venomous insects." "I have seen decidedly beneficial effects follow their application to contused wounds, swellings, and dislocations." (Dymock, p. 297.)

BUCHANANIA.

Buchanania atifolia, Roxb., ANACARDIACEAE.

228

Vern.—*Chirauli*, PB.; *Pikr*, OUDH; *Charu*, URiya; *Katmad*, aima, TAM.; *Pyal*, charoli, BOM.; *Lamboben*, lonenpho, BURM.

A tree of the Sub-Himalayan tract, from the Sutlej eastward, ascending to 3,000 feet. Found throughout India and Burma.

It yields a gum said to be administered in diarrhoea. The oil extracted from the kernels of the fruit is used as a substitute for almond oil in native medicinal preparations and confectionery. It is also applied to glandular swellings of the neck.

Buckthorn. See *Rhamnus cathartica*, Linn., RHAMNACE.

BUPLEURUM.

Bupleurum falcatum, Linn., var. *marginata*, UMBELLIFERA.

Vern.—*Kali sewar*, siphil, PB.

This and allied species are abundant in many parts of the Punjab Himalaya, from 2,500 to 11,500 feet. Also found on the Khásia Hills. They are reputed to have stimulant properties.

BUTEA.

Butea frondosa, Roxb., LEGUMINOSÆ.

BUTEA GUM and **BENGAL KINO**.

Vern.—*Dhak*, *palas*, *chichra*, HIND.; *Palás*, BENG.; *Palasi*, NEPAL; *Pará*, URiya; *Parasan*, TAM.; *Paldsha*, *khakaro*, BOM.; *Pouk*, BURM.

A moderate-sized deciduous tree, found throughout India and Burma, extending in the North-West Himalaya as far as the Jhelam.

"The seeds are a very powerful anthelmintic, which can be advantageously substituted for santonine; the gum is used in diarrhoea and dysentery; the flowers are given to *enciente* women in cases of diarrhoea, and applied externally in orchitis." (Amsterd. Cat.) The seeds are considered warm purgatives, and are used in fevers; the fresh juice is used in phthisis and haemorrhagic affections. It is also employed as an application to ulcers and relaxed sore-throat. As an astringent it is given in diarrhoea and dyspepsia. The leaves are described as astringent, tonic and aphrodisiac, and used to disperse boils and pimples, and are given internally in flatulent colic, worms, and piles. The flowers are astringent, depurative, diuretic, and aphrodisiac; as a poultice they are used to disperse swellings and promote diuresis and the menstrual flow. The seeds, when pounded with lemon juice and applied to the skin, act as a rubefacient. (Dymock.) The seeds act also as a vermifuge, and, when made into a paste, are used as a remedy for ringworm.

The gum of *Butea Supurbia*, Roxb., is also used medicinally by the natives, being considered astringent.

The charcoal from this plant was introduced by Dr. T. W. Sheppard in 1874, for bleaching the morphia manufactured at the Opium Factory, Ghazipur. It was selected after a series of experiments with the different forms of charcoal, its great advantage being its comparative freedom from saline matter; it can on this account be employed without any previous purification. Wood charcoal possesses feeble decolorizing

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powers than animal, but it had to be resorted to on account of the native prejudices against the use of bone charcoal. (Dr. Warden, Professor of Chemistry, Calcutta Medical College.)

BUXUS.

Buxus sempervirens, Linn., EUPHORBIACEÆ.

Vern.—*Shanda laghune*, ARG.; *Chikri*, KASHMIR; *Papri*, *papur*, *paprang*, *shamshâd*, *shumaj*, PB.

An evergreen shrub on the Sulaiman and Salt Ranges; North-West Himalaya, from altitude 4,000 to 8,000 feet; Bhutan, from 6,000 to 7,000 feet; scattered in different parts of the Himalaya.

The wood is diaphoretic; leaves bitter, purgative, and diaphoretic, useful in rheumatism and syphilis. Said to be poisonous to camels. A tincture from the bark is used as a febrifuge.

Cabbage rose. See *Rosa alba*, Linn., ROSACEÆ.

Cacalia kleinia, HB. MADR. See *Notonia grandiflora*, DC., COMPOSITÆ.

Cacalia kleinia. See *Onosma bracteatum*, WALL., BORAGINACEÆ.

Cacao. See *Theobroma Cacao*, Linn., STERCULIACEÆ.

Cactus indicus, Roxb. See *Opuntia Dillenii*, Haw., CACTÆ.

CADABA.

Cadaba farinosa, FORSK., CAPPARIDÆ.

In Murray's *Plants and Drugs of Sind* this plant has been mentioned, but its medicinal properties have not been described. The plant is common in Sind and the Punjab.

233 **Cadmium.**

CÆSALPINIA.

234 +*Cæsalpinia Bonducella*, Roxb., LEGUMINOSÆ.

Vern.—*Katharanj*, *katkaleja*, HIND.; *Nata*, BENG.; *Akitmakit*, ARAB.; *Khâyahe-iblîs*, PERS.; *Sagurghota*, *gaja*, BOM.; *Gajkai*, KAN.; *Gech-chakkay*, TAM.; *Ka-lien-dsa*, BURM.

Found all over India, especially in Bengal, Burma, and South India.

The seeds of this plant are tonic and antiperiodic. The kernels are used as a tonic in fevers, and made into an ointment with castor oil, and applied externally in hydrocele. An oil is extracted from the leaves which is used in palsy and rheumatism. "In Persia and India the seeds are considered to be hot and dry, useful for dispersing swellings, restraining haemorrhage, and keeping off infectious diseases." "They are also given internally in leprosy, and are thought to be anthelmintic. The oil expressed from the seeds is used as a cosmetic." "Necklaces of the seeds strung upon red silk are worn by pregnant women as a charm to prevent abortion." (Dymock.) The seeds are said to possess well-marked antiperiodic properties, and are largely used by the natives instead of quinine. For this purpose they are pounded with black pepper, from 5 to 30 grains being regarded as the proper dose. Ainslie seems first to have drawn the attention of Europeans to this powder, but even up to the present date it has not apparently taken the position which it deserves as a tonic and febrifuge.

salpinia Coriaria, Willd.**THE AMERICAN SUMACH OR DIVI-DIVI.**

Vern.—*Sumáque-amriquah*, ARAB.; PERS.; *Amrique-ka-Sumdq*, DSC.; *Shumak*, TAM.

A small tree, introduced from South America into India. It has been cultivated in Madras, Khandesh, and Cawnpore.

According to Dr. Bidie, the pods are astringent. The powder prepared from them is of a light-yellow colour and astringent taste; it has been brought forward as an antiperiodic by Dr. Cornish, who administered it in ninety-four cases of intermittent fever, many of them severe, with excellent results, the dose ranging from forty to sixty grains.

.. digyna, Rott.

Vern.—*Vakeri-mul*.

The root is used in native practice, and has marked astringent properties. (Dymock.)

. Sappan, Linn.

Vern.—*Bakam*, *patang*, HIND., PI. S., GUZ., BENG.; *Pattanga*, SANS.; *Bagam*, ARAB.; *Patunga*, *vattangi*, *vattekkku*, *vartangi*, TAM.; *Okanuk-katti*, TEL.; *Bokmo*, URIYA; *Tsing nyet*, BURM.

A small tree of South India, Bengal, and Burma.

Ainslie says a decoction of the wood has the property of a powerful emmenagogue. The wood, though chiefly used as a dye, is described as a useful astringent, containing much tannic and gallic acids, and has been recommended by O'Shaughnessy, and later by the *Indian Pharmacopœia*, as a good substitute for Logwood. As a dye a large quantity was formerly used in the preparation of the *Guldi* or *Holi* red powder. Tanniline has, however, displaced this use, as it seems destined to do many of India's most valuable tinctorial reagents.

CAJANUS.**ajanus indicus, Spreng., LEGUMINOSÆ.**

Vern.—*Arhar*, BENG., HIND.; *Shas*, ARAB.; *Adaki*, SANS.; *Shakull*, PERS.; *Thovaray*, TAM.; *Pai-yenkyung*, BURM.

A shrub cultivated all over India for its seed.

The pulse is said to be easily digested and suitable for invalids. It is said to be hot and dry; it produces constiveness, and is used in cold diseases. The leaves are used in diseases of the mouth.

ijuput oil. See *Melaleuca Leucadendron*, Linn., MYRTACEÆ.

jabar bean. See *Physostigma venenosum*, Balf., LEGUMINOSÆ.

CALAMUS.**lamus Draco, Willd., LILIACEÆ.**

DRAGON'S BLOOD.

Vern.—*Hirādakhana*, *hirādukkhi*, BOM.

A native of Sumatra and the Malay Islands. Flowering-time, March and April.

alcium.

ilisaya Bark. See *Cinchona Calisaya*, RUBIACEÆ.

CALOPHYLLUM.**CALLICARPA.**

- 241** *Callicarpa arborea*, Roxb., VERBENACEÆ.

Vern.—*Ghimala, shimali, KUMAUN; Bormala, BENG.; Khoja, Ass.; Doung-sap-pya, BURM.*

A moderate-sized tree of Kumaun, Oudh, Eastern Bengal, and Burma.

The bark is aromatic and bitter, and is applied in decoction in cutaneous diseases.

- 242** *C. macrophylla*, Vahl.

Vern.—*Patharman, sámdhi, denthar, daya, HIMALAYAN NAMES; Martha, matranga, BENG.*

A tall shrub of Northern India, found as far north as Hazára, and up to 6,000 feet.

In Hazára the leaves heated are applied to rheumatic joints.

CALLIGONUM.

- 243** *Calligonum polygonoides*, Linn., POLYGONÆ.

Vern.—*Balanja, berwaja, tatuke, TRANS-INDUS; Phok, phog, PB., SIND.*

A slow-growing shrub of the arid zone of Sind, the Punjab and Rájputáná, Afgánistán and Western Asia.

The roots are bruised, and, boiled in combination with *Catechu* (*Kath*), used as a gargle for sore-gums. (*Murray*.)

CALLITRIS.

- 244** *Callitris quadrivalvis*, Vent., CONIFERÆ.

Vern.—*Sandaras.*

A large tree of the forests of Algeria.

The resin obtained from this plant is known under the name *Sandarach*. The powder of *Sandarach* is used as a fumigatory after child-birth.

Calomel. See *Hydrargyrum*.

CALOPHYLLUM.

- 245** *Calophyllum inophyllum*, Linn., GUTTIFERÆ.

THE ALEXANDRIAN LAUREL.

Vern.—*Sultána champa, HIND., BENG.; Oodí, BOM.; Pinnay, punagam, TAM.; Pána, pándás, TEL.; Pongnyet, BURM.*

An evergreen tree of South India, Burma, and Andaman Islands.

The kernels of this tree yield a grateful-smelling fixed oil, held by the natives in high esteem as an external application in rheumatism. From the bark exudes a resin very useful in indolent ulcers. (*Pharm. Indica.*) From the bark exudes a resinous substance mistaken for *Tacamahaca* (*O'Shaughnessy*), said to resemble myrrh and to be a useful remedy for indolent ulcers.

Calosanthes indica. See *Oroxylum indicum*, Bth., BIGNONIACEÆ.

CALOTROPIS.

Calotropis gigantea, R. Br., ASCLEPIADEÆ.

246

Syn.—*ASCLEPIAS GIGANTEA*, Roxb.Vern.—*Madar*, HIND.; *Anshar*, ARAB.; *Khagak*, PERS.; *Arka, pratapasa*, SANS.; *Uk*, SIND; *Akand, gurtakand*, BENG.; *Ank*, NEPAL; *Yercum*, TAM.; *Mayo-beng*, BURM.

A small shrub found all over India, chiefly in waste land.

The root, bark, and juice of this plant are used in medicine for their emetic, diaphoretic, alterative, and purgative properties. In the treatment of dysentery the dried bark of the root is stated to be an excellent substitute for Ipecacuanha. The bark, root, and dried milky sap may be used in small doses in certain cutaneous affections, such as leprosy and secondary syphilis; the root-bark, in large doses, is an emetic. It is administered to promote secretions, and is stated to be useful in enlargements of the abdominal viscera, intestinal worms, cough, ascites, anasarca, &c. The flowers are considered digestive, stomachic, tonic, useful in asthma, catarrh, and loss of appetite.

C. procera, R. Br.

247

Syn.—*C. HAMILTONII*, R. Br.Vern.—*Safed-ak, ak, mudar*, HIND.; *Alarka*, SANS.; *Vellerku*, TAM.; *Spalwakka*, AFG.

A shrub found in drier parts of India.

The medicinal properties of this plant are similar to the preceding one. The milky juice is, moreover, used as a blistering agent. The fresh root is used as a tooth-brush, and is considered by Pátháns to cure toothache.

CALTHA.

Caltha palustris, Linn., RANUNCULACEÆ.

248

THE MARSH MARIGOLD.

Vern.—*Mamiri, baringh*, PB.

Mashes of the western temperate Himalaya, from Kashmir to Nepal; altitude 8,000 to 10,000 feet.

In Hazára the root is considered poisonous.

Calumba Root. See Jateorhiza palmata, Miers., MENISPERMACEÆ.**Calysaccion longifolium, Wight. See Ochrocarpus longifolius, Benth. & Hook. f., GUTTIFERÆ.****Cambogia. See Garcinia Morella, Desrous., GUTTIFERÆ.****Camomile or Chamomile. See Matricaria Chamomilla, Linn., COMPOSITÆ.****Camphire. See Lawsonia alba, Lamk., LYTHRACEÆ.**

CAMPHOR.

Camphor or Camphora.

The name "camphor" is technically given to a number of gum-resins, more or less resembling each other, derived from (1) *Cinnamo-*

DAMARUM.

mum Camphora, Nees, the well-known Camphor laurel of China and Japan ; (2) **Dryobalanops Camphora**, a gigantic tree of the Malay Archipelago ; and (3) **Blaeua balsamifera, DC.**, and **B. densiflora, DC.**, which see.

Camphor possesses stimulant, carminative, and aphrodisiac properties, and is widely used in medicine, both externally and internally. Its primary action is that of a diffusible stimulant and diaphoretic ; its secondary, that of a sedative, anodyne, and antispasmodic. In large doses it is an acro-narcotic poison. Camphor has been extensively used in the advanced stages of fevers and inflammation, insanity, asthma, angina pectoris, hooping cough, and palpitations connected with hypertrophy of the heart, affections of the genito-urinary system, comprising dysmenorrhœa, nymphomania, spermatorrhœa, cancer and irritable states of the uterus, chordie, incontinence of urine, hysteria, rheumatism, gangrene, and gout. It has also been employed as an antidote to strichnia, but with doubtful results. It is regarded as a medicine in impotence. (*Pharm. of India* ; *U. C. Dutt's Hind. Med.*)

CAMPHORA.

249
***Camphora glandulifera, Meissn., LAURINÆ.**Vern.—*Sasafras, BENG. ; Sassafras, NEPAL.*

A tree of the Nepal Himalayas.

The plant has stimulant and diaphoretic properties.

Canada Balsam Canarium. See Abies Balsamea, Aiton., CONIFERÆ.

CANARIUM.

250
****Canarium bengalense, Roxb., BURSERACEÆ.**Vern.—*Goguldhap, NEPAL ; Narockpa, LEPCHA ; Tekreng, GARO ; Bisjang, dhâna, Ass.*

Eastern Himalaya, Bengal and Burma.

It yields a brittle, amber-coloured resin, resembling copal.

251
==**C. commune, Linn.**Vern.—*Fangli badam, HIND.*

A native of the Malayan Peninsula, but generally cultivated in India.

The concrete resinous exudation "ELRMI" is chiefly imported from Manilla. Ainslie says that it has the same properties as Balsam of Copaiava. The kernels yield an oil which might be substituted for almond oil. Dr. Waitz, in his *Diseases of Children in hot climates*, speaks favourably of the kernels in emulsion as a substitute for *mistura amagdulæ*.

252

C. strictum, Roxb.

THE BLACK DAMMAR TREE.

Vern.—*Kala dammar, HIND., BENG., GUZ. ; Karapu kongsilam, karau dammar, TAM. ; Manda-dhup, KAN. ; Thelli, MAL. ; Nala rojan, TEL.*

A tall tree of South India.

Yields a brilliant resin, used medicinally or as a substitute for Burgundy Pitch. This is obtained by making vertical cuts in the bark and setting fire to the tree. Two years afterwards the resin is obtained from the incisions.

There are 18 Indian members of this genus, and it is probable that all, or nearly all, yield gums, but the preceding are the gums best known.

BIS.

CANELLA.**Canella alba, Murray, CANELLACEÆ.**

253

A West Indian plant imported into India, the bark being sold by druggists.

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CANNA.**Canna indica, Linn., SCITAMINEÆ.**

254

Vern.—Kiwára, N. W. P.; Lal-é-bo-jaya, BENG.

Common all over India.

The root is used as a diaphoretic and diuretic in fevers and dropsy.

CANNABIS.**Cannabis sativa, Linn., URTICACEÆ.**

255

HEMP.

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Vern.—Nabátul-qinnab, ARAB.; Nabátul-qunnab, PERS.; Ganjika, SANS.; Ganja, bhang, BENG., HIND.; Ganja, TAM.; Ganjai, TEL.; Bin, BURM.

An annual, wild or cultivated.

This is highly valued as a medicine, having narcotic, anodyne, and antispasmodic properties. It is primarily stimulant, secondarily anodyne, sedative, and antispasmodic. It is also said to be narcotic, diuretic, and paturifacient. It is useful in tetanus, hydrophobia, delirium tremens, ebrietias, infantile convulsions, various forms of neuralgia, and other nervous affections. It has also been employed in cholera, menorrhagia and uterine haemorrhage, rheumatism, hay fever, asthma, cardiac functional derangement, and skin diseases attended with much pain and pruritus.

CANSCORA.

256

Canscora decussata, R. & Seb., GENTIANACEÆ.**Syn.—PLADERA DECUSSATA, Roxb.****Vern.—Sankhdhuli, HIND.; Dankuni, BENG.; Sankhapushpi, SANS.**

This little plant is regarded as laxative, alterative and tonic, and is much praised as a nervine. It is also used in insanity, epilepsy, and nervous debility. The fresh juice of the plant is given in all cases of insanity, in doses of about an ounce.

CANTHARIS.**Cantharis vesicatoria, Latreille, COLEOPTERA.**

257

A dried insect imported into India and sold by chemists.

For indigenous insects used as substitutes, see *Mylabris cichorii*,*Fabr.*

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Capillare. See Adiantum.

CAPBARIS.

- 258** *Capparis aphylla*, Roth., CAPPARIDÆ.

Vern.—*Karil*, HIND.; *Karil*, PB.; *Kiral*, SIND.; *Kari*, BEHAR; *Kareyali*, DEC.

A small tree of the Punjab, Rájputána, and the Deccan.

The top shoots and young leaves are made into a powder which is used as a blister in native medicine.

- 259** *C. horrida*, Linn. f.

Vern.—*His*, *Kareila*, PB.; *Kgyalura*, QUDH.; *Adonda*, TEL.; *Katern*, GONDI; *Attandax*, TAM.

A climbing shrub common in most parts of India.

The leaves are applied medicinally as a counter irritant. A cataplasm of the leaves is useful in boils, swellings, and piles.

- 260** *C. sepiaria*, Linn.

Vern.—*Kántigurkámá*, BENG.; *Hián garna*, PB.; *Kanti kapali*, URIV.

A shrub met with in dry places in India and Burma.

The plant possesses febrifuge properties.

- 261** *C. spinosa*, Linn.

Vern.—*Kabwa*, AFG.; *Kabré*, TIBET; *Kaur*, *keri*, *kander*, *ber*, *barari*, PB.; *Ulla-kanta*, KUMAUN; *Kalvari*, SIND.

A small trailing shrub of the Punjab and Sind.

CAPSICUM.

- 262** *Capsicum annuum*, Linn., SOLANACEÆ.

RED PEPPER.

Vern.—*Mattisa*, *wángrá*, *lal mirch*, *marcha*, PB., HIND.

A native of equinoctial America, commonly cultivated for its fruit in the plains throughout India, in Kashmir, and on the Chenab up to altitude 6,500 feet; when grown on the hills it is said to be more pungent than that of the plains. There are seven varieties of this plant, differing chiefly in the length, shape, and colour of the fruit, some being round, oblong, obtuse, pointed, bifid, rugose, and red, white or yellow, or variegated.

The fruit is used medicinally in plasters and taken in cholera, and to counteract bad climate. The *Pharm. Indica* erroneously reduces this to be a synonym for *C. fastigiatum*, Bl.

- C. fastigiatum*, Blume. See *C. minimum*, Roxb.

- 263** *C. frutescens*, Linn.

Vern.—*Lanka*, BENG.; *Lal mirch*, HIND.; *Mollaghai*, TAM.; *Merapa-kaia*, TEL.

An annual, cultivateed throughout India, introduced from South America.

It is used as a medicine in typhus nad intermittent fevers and dropsy. It is also stomachic and an excellent rubefacient. In native practice it is prescribed in gout, dyspepsia, cholera, and ague.

Capsicum minimum, Roxb.

Syn.—C. FASTIGIATUM, Blume.

Vern.—Gach merich, HIND.; Mirchi, lal mirch, DEC.; Dhan-lungh-murich, BENG.; Pifile-surkh, PERS.; Fijile-akmar, ARAB.

Extensively cultivated throughout India, generally known as Bird eye chili.

"Acts as an acid stimulant, and externally as a rubefacient, used in putrid sore-throat and scarlatina; also in ordinary sore-throat, hoarseness, dyspepsia, and yellow fever; and in diarrhoea occasionally; also in piles." (Baden-Powell.)

Caraway. See Carum Carvi, Linn., UMBELLIFERA.

Carbon or charcoal.

Vern.—Koylak, HIND.; Koylak, BENG.; Zughdl, PERS.; Fahm, ARAB.

Wood-charcoal is antiseptic, deodorizing, and disinfectant. It has been employed sometimes successfully in dyspepsia, diarrhoea, dysentery, and intermittent fevers. It is also used as a dentifrice. Animal charcoal is deodorizing and antiseptic. It has been employed as an antidote in poisoning cases.

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Carbonate of lime.

This substance possesses antacid, alterative, and astringent properties. (Pharm. of India.)

Carbonate of potash.

Primarily antacid, secondarily alterative and diuretic. In over-doses poisonous. (Pharm. of India.)

Carbonate of soda.

Primarily antacid, secondarily alterative. (Pharm. of India.)

CARCHARIUS.

Carcharius glaucus.

C. vulgaris.

Two species of fish, which yield an oil used medicinally.

Cardamom. See Amomum subulatum, Roxb., and Elettaria Cardamomum.

CARDIOSPERMUM.

Cardiospermum halicacabum, Linn., SAPINDACEÆ.

Vern.—Lataphatkari, nayaphatki, BENG.

271

Grows in the plains of India from the North-West Provinces to Ceylon and Malacca. A common procumbent or climbing weed with ternate and inflated fruits.

As a medicine it is used as an emetic, laxative, stomachic, and rubefacient.

CARISSA

CARDUUS.

272

Carduus nutans, Linn., COMPOSITÆ.Vern.—*Kanchhari*, *tiso*, *biddward*, PB.

Found in Western Peninsula; from Kashmir to Simla, altitude 6,000 to 12,000 feet; and Hazara, in the Punjab; Western Tibet; Nubra, altitude 13,000 feet.

The flowers are considered febrifugal.

CAREYA.

273

Careya arborea, Roxb., MYRTACEÆ.Vern.—*Kumbi*, *khumbi*, HIND.; *Ayma*, *posta-tammi*, TAM.; *Buda-durmi*, TEL.; *Bambway*, BURM.; *Ahatte*, CINGH.

A large deciduous tree of the Sub-Himalayan tract, from the Jumna eastward, Bengal, Burma, Central and South India.

It is used as an astringent medicine, and also as a demulcent in coughs and colds. The flowers are given as a tonic in sherbet after child-birth.

CARICA.

274

Carica Papaya, Linn., PASSIFLOREÆ.Vern.—*Aanabahé-hindi*, ARAB.; *Penpe*, BENG.; *Papaya*, HIND.; *Pappayi*, TAM.; *Bappayi*, TEL.; *Thimbawthi*, BURM.

A small tree introduced from South America into India, and cultivated all over for its fruit.

It is used as a medicine in cases of enlarged spleen.

CARISSA.

275

Carissa Carandas, Linn., APOCYNACEÆ.Vern.—*Karonda*, *karaunda*, HIND.; *Karamcha*, BENG.; *Kalaka*, TAM.; *Karimda*, BOM.

Found throughout the drier sandy or rocky soils of India, native or cultivated; from the Punjab to Ceylon, Burma, and Malacca.

The unripe fruit is astringent, and the ripe one is cooling, acid, and useful in bilious complaints. The root is a bitter stomachic. (Dymock.)

276

C. spinarum, A. DC.Syn.—*C. DIFFUSA*, Roxb.Vern.—*Karaunda*, HIND.; *Géu*, *garna*, PB.; *San karunda*, URIYA; *Kakoliu*, TEL.

A small, thorny, evergreen shrub, wild in most parts of India, especially in the drier zones, and in the plains of the Punjab, the Sub-Himalayan tract up to 4,000 feet, and in Trans-Indus territory; also on the coast of South Andaman. (Kurs.)

This plant has been mentioned by Baden-Powell amongst his drugs, but no information has been given regarding its medicinal properties.

CARTHAMUS.

CAROXYLON.**Caroxylon foetidum, Moq., CHENOPodiaceæ.****Vern.—Moti lâne, gora lâne (or lâna gora), P.B.**

Not uncommon in the Central and South Punjab, the Trans-Indus and Sind.

This is the most plentiful species of this genus in the Punjab; but while it may be used in the preparation of the country carbonate of soda (*Sajji*), it is not so frequently used for that purpose as the next species. Aitchison states that at Jhelam it is used for this purpose and also in Sind.

Caroxylon Griffithii, Moq.**THE PUNJAB SALTWORT.****Vern.—Laghme, TRANS-INDUS; Khâr (or Kangan Khar), CIS-INDUS.**

This is perhaps the least abundant species, but it is the one most frequently used in the preparation of *Sajji*. Stewart says, " *Sajji* being an impure carbonate of soda, is equivalent to the Barilla of commerce manufactured in Spain" and the South of Europe, obtained from *Salsola fruticosa*, a plant much resembling the Punjab Saltwort. Roxburgh urged nearly a century ago the desirability of encouraging the manufacture of Barilla from *Arthrocnemum indicum, Moq.* (which see), and there seems every reason that a much-increased trade might be done in this salt in the various desert or sandy tracts of India where little else can succeed, a trade which should react upon the European imports of Barilla into Great Britain. In the Punjab, Multan seems to be the most important centre of the *Sajji* manufacture.

CARPESIUM.**Carpesium abrotanoides, Linn., COMPOSITE.****Syn.—CARPESIUM RACEMOSUM, Wall.****Vern.—Wotiangil, KASHMIR; Hukmandas, P.B.**

Some of the specimens so named by Wallich belong to *Rhynchospermum verticillatum, Reinw.*

A stout herb met with abundantly in Kashmir, extending along the Himalayas to Sikkim, altitude 5,000 to 10,000 feet : *Rhynchospermum* extends to the Khásia Hills and Burma, and descending to lower altitudes than *Carpesium*.

Mr. Honigberger says that this plant is used medicinally in the Punjab.

CARTHAMUS.**Carthamus oxyacantha, Bieb., COMPOSITE.****Vern.—Kantiari, kandiára poli, khresa, P.B.**

Abundant in many places in the Punjab from Ambálá up to Pesháwar.

Dr. Bellew states that the oil extracted from the seeds is used medicinally.

/ Carthamus tinctorius, Linn.**THE SAFFLOWER.****Vern.—Qurtum, ARAB.; Khasakdánah, PERS.; Kamalottara, SANS.; Kasum, BENG.; DAKHINI; Sendurgam, kashumba, TAM.; Ag-nisikha, TEL.; Hshoo, BURM.**

An annual cultivated extensively all over India.

The seeds of this plant are said to have laxative properties.

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CARYOPHYLLUS.

282

Carum Carui, Linn., UMBELLIFERÆ.

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Vern.—*Karoyd*, ARAB.; *Karbya*, PERS.; *Jira*, BENG.; *Zira*, HIND.; *Shimai-shombu*, TAM.; *Shimas-sapu*, TEL.

The plant is cultivated for its seeds as a cold-season crop on the plains; also frequent on the hills.

As a medicine it is supposed to have stimulant and carminative properties.

283

C. copticum, Benth.

THE BISHOP'S WEED; LOVAGE; AJAVA SEEDS.

Syn.—*AMMI COPTICUM*, BISS.; *PTYCHOTIS COPTICA*, DC.; *P. AJOWAN*, DC.

Vern.—*Jowan*, BENG.; *Ajowan*, HIND.; *Aman*, TAM.; *Omamees*, TEL.; *Ajwan, oma*, BOM.; *Yamani*, SANS.; *Zinian, nankhwah*, PERS.

Cultivated in many parts of India for its seeds, which have been used from remote periods as a condiment and medicine.

In native practice they are much valued for their antispasmodic, stimulant, tonic, and carminative properties. They are administered in flatulence, atonic dyspepsia and diarrhoea, and often recommended for cholera. They are used most frequently in conjunction with asafoetida, myrabolans, and rock salt. A decoction is supposed to check discharges, and it is therefore sometimes prescribed as a lotion, and often constitutes an ingredient in cough mixture. Dr. Bidie is strongly in favour of the extended use of this medicine. "As a topical remedy it may be used with advantage, along with astringents, in cases of relaxed sore-throats. For disguising the taste of disagreeable drugs and obviating their tendency to cause nausea and griping, I know of no remedy of equal power."

OMUM WATER—or distilled water from the seeds—is also sold in the bazars, and a crystalline essential oil (*Ajwan-ko-phul*). This is chiefly prepared at Oojein and elsewhere in Central India (*Pharm. Ind.*)

A specimen of this crystalline oil should be procured from Central India.

284

Carum Roxburghianum, Benth.

Syn.—*APIUM INVOLUCRATUM*, Roxb.; *PTYCHOTIS ROXBURGHIANA*, DC.

Vern.—*Basrul-karafs*, ARAB.; *Tukhme karafs*, PERS.; *Ajmád*, HIND.; *Ajmuddh*, DEC.; *Asham tágám*, TAM.; *Ajumóda-vomam*, TEL.; *Ajmád*, BENG.

Throughout India, extensively cultivated from Hindustan and Bengal to Singapore and Ceylon.

The seeds of this plant are useful in hiccup, vomiting, and pain in the bladder. They form ingredients of carminative and stimulant preparations.

CARYOPHYLLUS.**Caryophyllum aromaticus, Linn., MYRTACEÆ.**

285

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CLOVES.

Vern.—*Mekkah*, PERS.; *Lavanga*, BENG.; *Lóng*, HIND.; *Kiramber*, TAM.; *Lavangalu*, TEL.; *Labang*, DEC.

A native of the Moluccas. The flower-buds of this plant yield the cloves of commerce.

They are used medicinally as a warm remedy, and are prescribed in fevers and general debility.

Medicines.

CARYOTA

Caryota urens, Linn., PALMÆ.

BASTARD SAGO TREE.

Vern.—*Mari*, HIND.; *Mari-kájhar*, DEC.; *Kéndal-paṇai*, TAN.; *Ruṇ-bong*, LEPCHA; *Salopa*, URIVI; *Bhym*, KAN.; *Kimag*, BURM.

A beautiful tree of the evergreen forests of western and eastern moi zone of India. On the Western Ghâts it extends to near Mahableshwa It is common in Burma, Bengal, and Orissa, ascending in Sikkim up 5,000 feet.

“An excellent spirit is obtained by the fermentation and distillation of the toddy obtained from this elegant palm, which is not uncommon on the west coast of the Madras Peninsula. It is well adapted for pharmaceutical purposes.” “A glass of the freshly-drawn toddy taken early in the morning, acts as a laxative.” (*Pharm. of India.*)

Cascarilla bark. See *Croton Eluteria*, Bennett, EUPHORBIACEÆ.

Casearia tomentosa, Roxb., SALVYDACEÆ.

Vern.—*Chilla*, *chilara*, *bairi*, *bhari*, HIND.; *Maṇṇ*, MANBHŪM; *Ros*, KOL.; *Beri*, KHARWAR; *Chorcho*, SONTHAL; *Monturokuri*, MAL.; *Mo-wasa*, *gampadu*, TEL.; *Lainja*, *massei*, *karei*, MAR.; *Girari*, URIVI; *Thundri*, GOND.; *Khessa*, KURKU.

A small tree of the Sub-Himalayan tract from the Indus eastward to Oudh, East Bengal, Central and South India.

The bark is bitter and used as an adulterant for *Mallotus philippinus* (*Kamela*) powder.

Cashew tree. See *Anacardium occidentale*, Linn., ANACARDACEÆ.

CASSIA.

Cassia Absus, Linn., LEGUMINOSÆ.

Vern.—*Tashmisaj*, ARAB.; *Chashmisak*, PERS.; *Chákut*, *banár*, HIND. DEC.; *Mulaip-pal-virai*, TAM.; *Chanupdala-vittullu*, TEL.

A shrub common all over India.

One of the sources of the medicinal Senna leaves. The seeds reduced to a powder are applied beneath the eyelids in the form of an ointment in ophthalmia.

C. acutifolia, Delile. See *C. lanceolata*, Forsk.

C. alata, Linn.

Vern.—*Dadmaran*, BENG., HIND.; *Vilayati agati*, DEC.; *Shimai agat*, TAM.; *Sima avisi*, TEL.

A small shrub introduced from the West Indies into India.

The leaves of this plant are regarded as an excellent medicine for ringworm. They are also used in other skin diseases, and considered useful in snake-bite.

C. auriculata, Linn.

Vern.—*Tarwar*, *ewal*, HIND.; *Tarota*, BERAR; *Tangedu*, *tangar*, TEL. *Avarike*, KAN.

A shrub of Central and South India.

It is regarded as an astringent medicine of some merit. The seed are used in ophthalmia.

CASSIA FISCHERI, Linn.

Vern.—*Amalda*, HIND.; *Alash, ali, bandar*, GUZ.; *Gurmata bosa*, BURM. GUZ.; *Sundali, bandarlatip*, BENG.; *Kitwali, titoli, sim*, N. W. P. ARAB.; *Arabidha, swarnaka, rajataru*, SANS.; *Khyār-shanbar*, ARAB.; *Khyār-chunbar*, PERS.; *Kone, sirikone*, TAM.; *Reyku*, TEL.; *Gnooskway gnoegye*, BURM.

A moderate-sized deciduous tree of the Sub-Himalayan tract, ascending to 4,000 feet, and common throughout India and Burma.

The pulp of the fruit and the root-bark are used medicinally. They constitute, especially the former, one of the commonest and most useful of domestic medicines—a simple purgative. The *Makhsan-nl. Adwiya* recommends that the pods be warmed to extract the pulp, which should then be rubbed up with almond oil for use. It is a safe purgative for children and pregnant women. It is described as lenitive and useful in relieving thoracic obstructions. It is often combined with tamarisks. Externally it is useful in gout and rheumatism (*Dymock*). The flowers are made into a confection known as *gul-kam*, and viewed as a febrifuge. The bark and the leaves, like most other species of this genus, are valued external applicants in skin diseases.

292 C. glauca, Lam.

Vern.—*Konda tantepu chettu*, TEL.

A small tree of the eastern part of South India and of Burma. The bark and leaves are prescribed in diabetes and gonorrhœa.

293 C. lanceolata, Forsk.

INDIAN OR TINNEVELLY SENNA.

Vern.—*Sadde-hindi*, ARAB., PERS.; *Sanna makki*, BENG.; *Hindi-sándi*, HIND.; *Nilá-virai*, TAM.; *Nila-tangedu*, TEL.

Cultivated in various parts of India for its leaves, and said by Aitchison to be so in the Punjab.

It produces the officinal Senna leaves. The *Pharm. Indica* remarks that *C. acutifolia* is probably a variety of this plant.

C. Lignea. See *Cinnamomum Tamala*, Nees, Laurineæ.

294 C. obovata, Colladon.

SENNA.

Syn.—*CASSIA SENNA*, Linn.; *SENNA OBTUSA*, Roxb.; *CASSIA LANCEOLATA*, Wall.

Vern.—The same as those of *C. lanceolata*, Forsk.

A shrub common all over India. This species, along with *C. lanceolata*, is the principal source of the medicinal Senna leaves.

295 C. occidentalis, Linn.

Vern.—*Kasondi*, HIND.; *Kdakashundd*, BENG.; *Peydi-veri*, TAM.; *Kasin-dá*, TEL.; *Kalan*, BURM.

An annual; common in Bengal, South India, and Burma.

"The seeds and leaves are used externally in cutaneous diseases."—
(Amsterd. Cat.)

Cassia Sophora, Linn.

Vern.—*Bandr, bdo-bhāndi, HIND.; Kal-sashana, BENG.; Sarī-kāndi, jangītādhi, DEC.; Periya-takarmi, TAM.; Pālikāngādi, TEL.; Kōra-māda, SANS.*

A common shrub in the Mimalayan Tarai, Bengal, Burma, and South India.

The bark, leaves, and the seeds are used as a cathartic, and the juice of the leaves is viewed as a specific in ringworm, made into a plaster and combined with sandal-wood. The Sanskrit name means "destroyer of cough," from which fact it is natural to infer that it was formerly used as an expectorant, but there is no distinct record of this being the case.

C. Toga, Linn.

297

Vern.—*Sanjsabdyah, ARAB.; Sangs-boyah, PERS.; Prabanatha, SANS.; Chakunda, BENG., HIND.; Tarota, DEC.; Ushittagarai, TAM.; Tagarisha chitti, TEL.; Dan-ky-wai, BURM.*

A common weed growing all over India and Burma, exceedingly common on waste places around villages.

The leaves are used as an aperient; both leaves and seeds are a valuable remedy in skin diseases, chiefly for ringworm and itch.

Cassytha filiformis, Mill., LAURINÆ.

298

Vern.—*Akabel, BENG.*

A small parasitic plant, much resembling a *Cuscuta*, for which it is often mistaken.

Castoreum or Castor,

299

The dried preputial follicles and their secretion, of the *Castor fiber, Linn.* the Beaver, met with in Canada and Siberia. It is a mild stimulant and antispasmodic, used in hysterical, nervous, and spasmodic affections.

Castor oil. See Ricinus communis, Linn., EUPHORBIACEÆ.

CASUARINA.

Casuarina equisetifolia, Forster, CASUARINÆ.

300

Syn.—*C. MURICATA, Roxb.*

Vern.—*Chouk, TAM.; Erva, TEL.; Kāsrīke, MYSORE; Tinju, BURM.; Aru, MALAY.*

A large evergreen tree on the coasts of Chittagong, Burma, the Malay Archipelago, North Australia, and Queensland. Cultivated all over India, except in the north-western portion of the Punjab.

The bark is slightly astringent, and said to be employed in infusion as a tonic; and according to Dr. Gibson is an excellent and often readily available astringent in the treatment of chronic diarrhoea and dysentery. (*Murray.*)

Catechu. See—

[7.] (a) *Acacia Catechu, Willd., LEGUMINOSÆ* (black catechu).

(b) *Uncaria Gambier, Roxb., RUBIACEÆ* (pale catechu).

[125.] (c) *Areca Catechu, Linn., PALMÆ.*

Caustic Potash. See Potassium.

Caustic Soda. See Sodium.

CEDRELLA.

Cedrela Toona, Roxb., MELIACEAE.

Vern.—*Tón, tón, mahó-nim, HIND. & Tón, tón, BENG. ; Naha limbu, URYA ; Drossi, PB. ; Poma, ASS. ; Thit kado, BURM.*

A large tree of the Sub-Himalayan forests, Bengal, Burma, South India; ascending in the North-Western Himalaya to 3,000 feet, and in Sikkim to 7,000 feet.

The bark has astringent properties, and is a mild febrifuge, useful in diarrhoea and dysentery, especially of children.

CEDRUS.

Cedrus Deodara, Loudon, CONIFERÆ.

Vern.—*Nakktar, AFG. ; Diár, deodar, dadar, ZÁRA, KASHMIR, GARHWAL, KUMAUN ; Paládar, HAZÁRA ; Giam, TIBET.*

A very large and tall tree of the North-Western Himalaya, between 6,000 and 10,000 feet, extending east to the Danli river, a tributary of the Alaknanda below the Niti Pass; also met with in the mountains of Afghánistán and North Beluchistán.

The wood is used medicinally as a carminative, diaphoretic, and diuretic. An oil is obtained from the wood by destructive distillation resembling crude turpentine. It is used as a remedy for ulcers and eruptions, and for mange in horses and sore-feet in cattle.

CELASTRUS.

Celastrus paniculatus, Willd., CELASTRINÆ.

Syn.—*GYMNOSPIRA MONTANA, Lawson.*

Vern.—*Mál-kangni, HIND. ; Malakni, OUDH, KUMAUN ; Kahundan rangul, C. P. ; Kanguni, BOM. ; Ruglim, LEPCHA ; Atiparich-cham, TAN. ; Málkanguni-vittulu, TEL.*

A scandent shrub of the outer Himalaya from the Jhelum to Assam, ascending to 4,000 feet; Eastern Bengal, Behar, South India, and Burma.

The red seeds are used medicinally, principally for horses. They are given in rheumatism and paralysis. An empyreumatic oil is obtained from the seeds by destructive distillation, which is applied externally. Gamble says the leaves also are used medicinally.

C. senegalensis, Lam.

Vern.—*Sherawane, TRANS-INDUS ; Talkar, kharai, PB. ; Baikal, gajachinni, C. P. ; Mal kangoni, BOM. ; Danta, babur, GONDI ; Danti, pedda chintu, TEL.*

A tall, spinescent shrub of the northern dry and intermediate zones and North-West India, ascending to 4,000 feet; Central India, and the drier parts of the Peninsula.

CELOSIA.

Celosia argentea, Moq., ver. vera, CHENOPODIACEÆ.

Vern.—*Sarmali, PB.*

An abundant weed of the fields of the Punjab plains, and occasionally ascending to altitude 5,000 feet in the Himalaya.

The seeds are officinal.

Cleome cristata, Linn.

Vern.—Māmal, taji more, bōtīmārī, P.

Cultivated as an ornamental plant in the plains, and on the Himalaya, Kashmir (5,000 feet).

The flowers are officinal, and the seeds are considered demulcent.

CELSIA.

Celsia coromandeliana, Vahl., SCROPHULARIACEÆ.

307

Vern.—Kukshima, BENG.

An herb found throughout India, from Punjab to Ceylon, ascending to 5,000 feet in altitude.

The inspissated juice of the leaves has been prescribed in several cases of acute and chronic dysentery. It acts as a sedative and astringent. (*Pharm. of India.*)

CELTIS.

Celtis caucasica, Willd., URTICACEÆ.

308

Vern.—Batter, P.

A moderate-sized tree of Afghánistán, Beluchistán, Salt Range, Hazára, Kashmir.

The fruit is officinal, being given as a remedy in amenorrhœa and colic.

CENTAUREA.

Centaurea Behen, Linn., COMPOSITE.

309

Vern.—Báhman sárkh or lal, bahman safaid, HIND., BOM.

A native of the Euphrates Valley.

The root is a bitter tonic and purgative. It is used as a substitute for rhubarb. Hakims use it as an aromatic, and a powerful aphrodisiac and resolvent of phlegmatic humours.

CENTIPEDA.

Centipeda orbicularis, Lour., COMPOSITE.

310

Syn.—*ARTEMISIA STERNUTATORIA*, Roxb.

Vern.—Nakk-chiknee, HIND., BENG. and BOM.

A common plant throughout the plains of India and Ceylon in moist places, appearing during the latter part of the cold season in fields. It forms procumbent densely-branched tufts.

"The minute seeds are used as a sternutatory by the Hindus, also the powdered herb. The plant does not grow in this part of India, but the dry herb, both entire and in powder, is always to be obtained in the druggists' shops." (*Dymock's Mat. Med. of Western India.*)

CBRERA.

CEPHÆLIS.

311 *Cephaelis Ipecacuanha*, Rich., RUBIACEÆ.

IPECACUANHA.

An introduced plant into India, being cultivated at the Government Cinchona plantations with scanty success. There are two wild member of the genus, however, met with in Malacca.

An emetic, diaphoretic, and expectorant, and in small doses alterative. The powdered Ipecacuanha, in the form of ointment, acts as a counter irritant. In dysentery it is by modern use regarded as a specific.

CEPHALANDRA.

312 *Cephalandra indica*, Naud., CUCURBITACEÆ.

Syn.—*Coccinea indica*, W. & A.

Vern.—*Kanduri*, *ghol*, *kândrâ*, *Ps.*

(SMT 25)

Common throughout India.

"The expressed juice of the thick tap-root of this plant is used by the native physicians (*Kavirajas*) as an adjunct to the metallic preparations prescribed by them in diabetes."—(*U. C. Dutt.*)

313 *Cera, Alba* and *Flava*.

WAX.

Vern.—*Mom*, PERS., HIND., DEC., BENG.; *Shama*, ARAB.; *Mashukku* TAM.; *Mainam*, TEL.

The prepared Honey-comb. Is officinal in *Pharmacopœia Indica*. Is emollient and demulcent, chiefly used in preparation of ointments, plasters, &c.

CERATONIA.

314 *Ceratonia Siliqua*, Linn., LEGUMINOSÆ.

THE CAROB, ST. JOHN'S BREAD, or LOCUST BEAN.

Vern.—*Karnâb*, N. W. P.

A small tree, native of countries bordering on the Mediterranean extending to Syria and Western Asia. Imported into India.

The seeds are used by the natives in coughs attended with much expectoration. The saccharine matter in which they are imbedded is very nutritious, and forms an important constituent in patent cattle foods.

CBRERA.

315 *Cerbera Manghas*, Linn. See *Tabernaemontana dichotoma*, Roxb., APOCYNACEÆ.

C. Odollam, Gaertn., APOCYNACEÆ.

Syn.—*Roxb.*, Fl. Ind. I, 602; *Wight's Jc. t.* 441; *C. LACTARIA*, Ham. *TANGHINIA ODOLLAM*, *LACTARIA* and *LAURIFOLIA*, Don.

Vern.—

A small tree of the salt swamps, or on the coasts of India and Ceylon common in the South Concan.

Emetic and purgative properties are assigned to the milky sap and to the leaves, but their use is to be condemned.

Cerbera Thevetia, Linn. See *Thevetia nerifolia, Juss.*

Cerevisiae fermentum.

BEER YEAST.

The ferment obtained in brewing beer, successfully used as a stimulant in the adynamic forms of fever and dysentery. It is chiefly used as a poultice. (*Pharm. Ind.*)

CERIOPS.

Ceriops Candoleana, Arnott., RHIZOPHOREÆ.

317

Vern.—*Kirri, chauri, Sind; Goran, Beng.; Mada, And.*

A small evergreen tree of the muddy shores and tidal creeks of India and the Andaman Islands. Common in Sind.

The whole of the plant abounds in an astringent principle. The decoction of the bark is used to stop haemorrhage, and applied to malignant ulcers. On the African coast, a decoction of the shoots is used as a substitute for quinine.

Cetaceum. See *Physeter macrocephalus, Linn.*, MAMMALIA.

CETRARIA.

Cetraria islandica, Achar., LICHENES.

318

ICELAND MOSS.

Imported into India and sold in chemists' shops. Is demulcent, nutritive, and tonic. As a decoction or jelly it is used in scrofulous and scorbutic affections ; said to be valuable in phthisis.

Cevadilla or Sabadilla. See *Asagreæ officinalis, Lindl.*

Ceylon moss. See *Gracilaria lichenoides, Greville*, ALGÆ.

Chalk.

319

CHAMÆROPS.

Chamærops Ritchieana, Griff., PALME.

320

Vern.—*Masri, nosardi, TRANS-INDUS; Kilu, kaliám, SALT RANGE; Pfish, pesh, pharr, SIND, BELUCH.*

A stemless, gregarious shrub of Sind, Trans-Indus, the Punjab, Afghánistán, and Beluchistán.

The delicate young leaves are given in diarrhoea and dysentery. They are also purgative ; chiefly used in veterinary medicine.

Chamomile or Camomile. See *Matricaria Chamomilla, Linn.*, COMPOSITÆ.

Charcoal-wood. See Carbon.

Chaulmugra. See *Gynocardia odorata, Br.*, COMPOSITÆ.

Chavica Betle, Miq. See *Piper Betle, Linn.*, PIPERACEÆ.

C. officinarum, Miq. See *Piper officinarum, C. DC.*

C. Roxburghii, Miq. See *Piper longum, Linn.*

CHRYSAN-
THEMUM.

CHEIRANTHUS.

- 321** *Cheiranthus chieri*, Linn., CRUCIFERA.

THE WALL-FLOWER.

Vern.—*Todri surkhor'lal*, HIND.

Cultivated in gardens in North India, but is not indigenous.
Flowers said to be cardiac and emmenagogue, used in paralysis.

CHENOPODIUM.

- 322** *Chenopodium album*, Moq., var. *commune*, CHENOPodiACEÆ.

Vern.—*Bathoo-sag*, BENG.; *Bathoohak*, PB.; *Ghil*, SIND.; *Irr, em*, LADAK;
Bathua, jausig, PLAINS.

A common weed throughout the Punjab plains and apparently to
8,500 feet in parts of the Himalaya, and 13,500 feet in Ladak.
The plant is used as a laxative in spleen and bilious disorders.

CHICKRASSIA.

- 323** *Chickrassia tabularis*, Adr. Juss., MELIACEÆ.

Vern.—*Chikrassi*, BENG.; *Boga poma*, ASS.; *Agray, agal*, TAM.; *Madar-gari vembu*, TEL.; *Yimmahyengma*, BURM.; *Arroddah*, AND.

A large tree of Eastern Bengal, Assam, Chittagong, Burma, and
South India.

The bark is a powerful astringent.

- 324** China Root. See Small China, LILIACEÆ.

Chirata. See *Swertia Chirayta*, Ham., GENTIANACEÆ.

Chloride of sodium.

CHRYSANTHEMUM.

- 325** *Chrysanthemum coronarium*, Linn., COMPOSITE.

Syn.—C. ROXBURGHII, Desf.; PYRETHRUM INDICUM, Roxb.

Vern.—*Gul-chini*, HIND., DEC.; *Gul-dandi*, BENG.; *Guldandi*, GUZ.;
Shámantíp-pú, TAM.; *Chámanti*, TEL.; *Shávantíká*, SANS.; *Gulo-dandi*,
PERS.

- 326** C. indicum, Linn.; Roxb. Fl. Ind., iii, 604.

Vern.—*Gáláudi*, HIND., a name Roxburgh says is applied to all the
varieties; *Gendi, bágár*, PB.; *Kalsang*, LADAK; *Chemanti*, TEL.

Commonly cultivated in gardens in the plains, in Kashmir, on the
Upper Chenab, &c., to 9,000 feet, and in Ladak at 11,300 feet.

It would appear that this and the preceding plant are not distinguished
from each other by the natives of India, and the native names apply
to both. Dalzell and Gibson (*Bombay Flora*, ii, 48) state that the flowers
of these plants are good substitutes for chamomile. The root when
chewed conveys the same tingling sensation to the mouth as is produced
with pellitory.

Medicines.

Cicca disticha. See *Phyllanthus*.

Cicendia hyssopifolia, W. & A. See *Ericostema littorale, Blume.*
GENTIANACEÆ.

CICER.

Cicer arietinum, Linn., LEGUMINOSE.

Vern.—*Chhola, Beng.; But, chand, Hind.; Kadaley, Tam.; Senaga, Tel.; Kulapai, Burm.; Khallul-kimmas, Arab.; Sirkhae, nakhud, Pers.; Harbare-kd-sirkâ, Dec.*

Cultivated all over India as a winter crop.

In medicine the seeds are considered antibilious. The chief interest medicinally is, however, in the acid liquid obtained by collecting the dew-drops from the leaves. This vinegar is mentioned by the old Sanskrit writers as a useful astringent, which might with advantage be given in dyspepsia. Mr. Moodeen Shariff gives an interesting account of its collection. A piece of clean cloth is tied to the end of a stick and the pulse crop is brushed with this in the early morning, so as to absorb the dew. This is then wrung out and preserved. The fact that the drops of dew are thus chemically changed through contact with a living plant is a point of great botanical interest, not at present fully understood. The liquid is found to contain chemically oxalic, acetic, and malic acids.

CICHORIUM.

Cichorium Intybus, Linn., COMPOSITÆ.

THE WILD OR INDIAN ENDIVE.

Vern.—*Kasni, Hind., Pers.; Hindyba, Arab.; Kashini-virai, Tam.*

North West India, Kumaun, probably only an escape from cultivation.

Has tonic, demulcent, and cooling properties. The seeds are considered carminative and cordial. "Prescribed in bilious complaints much as *Taraxacum* is used in Europe. The seeds are one of the four lesser cold seeds of old writers, and as such are still in use in the East." (Dymock.) The cultivated or true Endive (*C. Endiva, Willd.*) is also common in Indian gardens.

CIMICIFUGA.

Cimicifuga foetida, Linn., RANUNCULACEÆ.

Vern.—*Sianti, PB.*

Found in the temperate Himalaya, from Bhûtan to Gores and Kashmir; altitude 7,000 to 12,000 feet.

The root is said to be poisonous. In Siberia it is used to drive away bugs and fleas. Under the name of a nearly allied plant (*Actaea spicata*), I have already referred to this plant, and I have done so chiefly with the view of attracting attention to these useful but apparently neglected plants.

Garrod, in his *Materia Medica*, calls *Cimicifuga racemosa, Linn.*, the Black Snake Root, and remarks that it is a remedy much used in America. He gives the dose of the tincture as 30 to 40 minims. He

CINNABAR.

remarks: "Its use is said to have been attended with much success in rheumatic fever, in chorea, and in lumbago and in some forms of puerperal hypochondriasis." The *Pharmacographia* gives the history of *C. racemosa*. It was first made known to Europe in 1606, and was scientifically identified and named by Linnaeus in his *Materia Medica* in 1749. In 1823 it was introduced into medical practice in America, and to England in 1860.

There seems every reason to expect that the Indian species, which differs from *C. racemosa* only very slightly, will be found to possess all its medicinal virtues. *C. racemosa* is chiefly prescribed in the form of tincture and employed in rheumatic affections, dropsy, the early stages of phthisis, and chronic bronchial diseases. Externally, a strong tincture has recently been used to reduce inflammations. (See *Year Book of Pharmacy, 1872*.) A section of the root exhibits a central pith with broad radiating plates subdividing the wood into 3-5 wedge-shaped sections with a thick brittle bark surrounding the wood. It contains a resinous active principle which has been termed Cinicifugin or Macrotin. In its action this drug resembles hellibore on the one hand and colchicum on the other. It is most useful in acute rheumatism, and a powder of the root is perhaps the best mode in which to give the drug, in doses of 20 to 30 grains. (*Royle's Mat. Med., ed. by Harley*.)

CINCHONA.**330 Cinchona Calisaya, Weddell, RUBIACEÆ.****THE CALISAYA BARK.**

Vern.—Bérak, DEC.; Shurappattai, TAM.; Fradap-patta, TEL.

Cultivated in Sikkim at moderate elevations.

It yields one of the most valuable of the Cinchona Barks, rich in alkaloids, among which quinine forms $\frac{1}{2}$ to $\frac{1}{3}$. The bark and powder form the officinal parts, being powerfully antiperiodic, tonic, and astringent: the two former properties are due to the presence of quinine. The leaves also possess tonic and antiperiodic properties.

331 C. Condaminea, Humb.**LOXA or CROWN BARK.**

Syn.—C. OFFICINALIS, Linn.

Cultivated at high elevations on the Nilgiris, in Ceylon, and in Sikkim.

It is a febrifuge, and as such highly valued. Its bark is rich in alkaloids, of which more than one half is quinine.

332 C. succirubra, Pavon.**THE REE BARK.**

Vern.—The same as for C. Calisaya.

Cultivated on the Nilgiris and other hills of South India, at the plantations of Rangbi and Poomong in Sikkim, on the hills east of Toungoo in Burma, and in parts of the Satpura range in Central India.

At first it was experimentally cultivated by Government, but Cinchona has so far proved itself a profitable investment as to have induced several Tea Companies to form new gardens or set apart portions of their old plantations for the purpose of cultivating this and other Peruvian bark-yielding species.

Cinnabar. See Sulphide of mercury.

Medicines.

CINNAMOMUM.

Cinnamomum Camphora, Nees, LAURINÆ.

One of the sources of the Japan CAMPHOR of Commerce.

Syn.—CAMPHORA OFFICINARUM, Nees.*

Vern.—*Kafér*, ARAB., PERS., and HIND.; *Kapér*, DEC.; *Karuppura, shádan*, TAM., TEL.; *Kápér*, BENG.; *Payo parank*, BURM.

A tall tree, with smooth, shining leaves, a native of China and Japan. Camphor is a crystalline volatile substance, prepared by boiling chips of the wood in a retort. The chemical substance passes off with the steam and condenses upon straw placed in the summit of the retort for that purpose. It is afterwards purified by sublimation and made into cakes. For medicinal properties, see **Camphor**.

C. glanduliferum, Meissn.

A tree of the mountains of Nepal, Sikkim, Bhutan, and Khásia.

In the Indian Pharmacopœia, this has been recommended as worthy of more attention than has been hitherto paid to it.

C. iners, Rwdt.

Vern.—*Jangli-dárhini*, HIND. (*Birdwood*); *Jangli dalchini*, DEC. *Kattu-karuráfs pattai*, TAM.; *Adavi-lavanga-pati*, TEL.; *Sikiyab, looleng-kyaw*, BURM.

A tree of Eastern Bengal, South India, and Burma.

Dr. Kurz remarks that he does not know in what this species should differ from the true Cinnamon.

C. obtusifolium, Nees.

Syn.—LAURUS OBTUSIFOLIA, Roxb.

Vern.—*Tespát, ramtespat, kinton*, BENG.; *Bara singoli*, NEPAL; *Nupsor LEPCHA*; *Patichanda*, ASS.; *Dupatti*, MECHI; *Krowai*, MAGH. *Looleng-kyaw*, BURM.

A large tree of the outer North-West Himalaya, ascending to altitude 7,000 feet; Eastern Bengal, Burma, and the Andaman Islands.

Dr. Kurz says the aroma of the bark is variable, and the bark of the root of the Martaban plant is as aromatic as the best Ceylon cinnamon.

C. Parthenoxylon, Meissn.

Vern.—*Kayo-gadis*, MAL.

A native of South Tenasserim, known as the Martaban Camphor Wood.

The fruit yields an oil used in rheumatic affections. An infusion of the root is also employed as a substitute for sassafras.

C. Tamala, Nees.

Syn.—LAURUS CASSIA, Roxb.; (? C. CASSIA, Bl.); C. ALBIFLORUM, Nees

Vern.—*Dalchini, kirkiria, kikra, talisputar, silkanti*, HIND.; *Chota sinkoli*, NEPAL; *Nupsor, LEPCHA*; *Dopatti*, ASS.; *Zarnab*, ARAB.; *Tejját*, DEC. *Talisha-patiri*, TAM.; *Talisha-patri*, TEL.

A moderate-sized evergreen tree on the Himalaya, sparingly from the Indus to the Sutlej, common thence eastward between 3,000 and 7,000 feet to Eastern Bengal, the Khásia Hills, and Burma.

The leaves and the bark are considered hot and cardiac. The Cinnamon known as Cassia Cinnamon or Cassia Lignea of Indian commerce is obtained from this plant. It is coarser and sold in larger

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pieces than the true Cinnamon or bark of *C. zeylanica*, for which it is often used as an adulterant. It also yields the buds known in India as Cassia Buds. Kurz says the bark of the root is quite as good as the true Cinnamon Bark. In Manipur I found the natives to the east regularly in the habit of collecting the root-bark instead of the stem-bark.

By some authors *C. Cassia*, Bl., is kept distinct from *C. Tamala*, Nees. As far as the Indian plants which bear these names are concerned, I can see no advantage in keeping them distinct. I therefore agree with Gamble in viewing them as the same plant. In medical works it is generally stated that the Cassia Cinnamon is derived from *C. Cassia*, but on this point Flückinger and Hanbury, in their *Pharmacographia*, say : "Although it is customary to refer it (Cassia Bark) without hesitation to a tree named *Cinnamomum Cassia*, we find no warrant for such reference; no competent observer has visited and described the Cassia-yielding districts of China Proper and brought therefrom the specimens requisite for ascertaining the botanical origin of the bark." China is, however, the chief source of the Cassia Lignea of commerce, it being exported from Canton. It seems quite likely that the so-called *Cinnamomum Cassia* may prove a different plant from *C. Cassia*, Bl., but there is no doubt whatever as to the source of the Indian Cassia Lignea. It is chiefly obtained from *C. Tamala*, Nees, and from *C. obtusifolium*, Nees. Gamble says the bark of *C. Tamala* is largely collected and sold under the name of *Taj*.

339

Cinnamomum zeylanicum, Breyn.

Vern.—*Dalchini*, HIND.; *Karruwa*, TAM.; *Sanalingu*, TEL.; *Loolengkyam*, BURM.

A tree indigenous in the forests of Ceylon up to 8,000 feet in altitude. Dr. Kurz says it is also met with in the forests of Tenasserim.

It is supposed to be a tonic and heating medicine. The leaves are, like the bark, aromatic, and they give oil of cloves. The liber or bark also yields oil, but it is chiefly used as a condiment, reduced to powder or broken into small pieces. The bark is removed by making longitudinal incisions on the twigs, when it coils up naturally, and when dry is then broken off. These rolled-up pieces of the pure Cinnamon are generally in the form of brown pipes, and not more than $\frac{1}{8}$ th of an inch in thickness. The best quality of Cinnamon comes from Ceylon, but even from there it is not uniform in quality. The produce from Negombo and Mature is much superior in aromatic properties than from any other part of the island. Cinnamon may be said to be aromatic, carminative and stimulant, and somewhat astringent. It is largely combined with other medicines as a condiment, and is indicated in all cases characterised by feebleness. In combination with chalk its astringent properties are taken advantage of in the cure of diarrhoea.

CISSAMPELOS.

340 *Cissampelos Pareira*, Linn., MENISPERMACAE.

PAREIRA BARK.

Syn.—*C. HERNANDIFOLIA*, Wall.

Vern.—*Katori*, *tikri*, PB.; *Dakh nirbisi*, *pari*, N. W. P.; *Harjouri*, OUDH; *Batulpati*, NEPAL; *Pata*, TEL.; *Nimsha*, BENG.

A climber common both to the Old and New Worlds; furnishes the *Radix Pareira* of druggists.

The dried root and bark are used as mild tonics and diuretics in advanced stages of acute and chronic cystitis and catarrhal affections of the bladder.

Cissus carnosa, Lam., AMPHIDEEÆ.

Vern.—*Karik, amal boi, gildardak, drukri, vallkri*, PB.

A pretty climber which is found in several of the valleys from 2,000 to 8,000 feet, and occurs in parts of the plains.

In Jummoo, the root ground with black pepper is applied to boils.

CITRULLUS.**Citrullus Colocynthis, Schrad., CUCURBITACEÆ.**

Vern.—*Habhal, Aulqum*, ARAB.; *Hindavána-ka-talikh*, PERS.; *Indral-varuni*, SANS.; *Makai, indrayan*, BENG., HIND.; *Pey-ko-mati*, TAM.; *Eti-puch-cha*, TEL.; *Kiyá-si*, BURM.

Common all over India.

It has antibilious, febrifugal, and cathartic properties.

C. vulgaris, Schrad.

Syn.—CUCURBITA CITRULLUS, Linn.

Vern.—*Tarbusa*, BENG., HIND.

Cultivated in Bengal and North-Western Provinces for its fruit.
The seeds are used as a cooling medicine.

CITRUS.**Citrus Aurantium, Linn., RUTACEÆ.****THE ORANGE.**

Vern.—*Naranj*, ARAB.; *Narang*, PERS.; *Kamlá nembu*, BENG.; *Sangtra, narangi*, HIND.; *Kichili chechu*, TAM.; *Ganjanimma*, TEL.; *Thau-baya*, BURM.

Cultivated in most parts of India, but specially in Sikkim and Sylhet.

The rind of the fruit is bitter and aromatic. Oranges are said to be abripharmic and disinfectant, orange-water stimulating and refreshing. Orange poultice is recommended in skin affections.

C. medica, Linn.

Var. 1. *medica proper.*

THE CITRON; CEDRATIER, Fr.; CEDRO, It.

Vern.—*Bijaura*, HIND.; *Boppura*, BENG.; *Vijapéra*, SANS.; *Utrej, otroj*, ARAB.; *Turanj*, PERS.

Cultivated in many parts of India—Assam, Calcutta, Chota Nagpur, North-West India, Bombay; also in Persia.

Citron rind is hot and dry and tonic; pulp cold and dry; seeds, leaves, and flowers hot and dry; juice refrigerant and astringent.

Var. 2. *Limonum.*

THE LEMON. LIMONIER, more generally CITRONNIER, Fr.; LIMONE, It.; CITRONE, Germ.

Vern.—*Bara nimbu*, HIND.; *Korna nebu*, BENG.; *Qalambak*, ARAB.; *Kalanbak*, PERS.; *Maha-jambira*, SANS.; *Kligi-samyd-si*, BURM.

Cultivated abundantly in the south of Europe; also cultivated in India.

Citric acid is made of the fruit of this variety. There are three officinal parts of the fruit: (1) the outer part of the rind; (2) the essential

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oil of the rind; (3) the juice of the ripe fruit. The rind is said to be stomachic and carminative. Lemon oil is carminative in doses of from two to four drops. It has been applied in some cases of ophthalmia, but with doubtful results. Lemon juice is highly valued as an antiscorbutic and refrigerant; primarily antalkaline, secondarily, antacid. It forms the best remedy for scurvy, and an excellent drink in fever and inflammatory affections. It has met with success in acute rheumatism, dysentery and diarrhoea. It also forms an antidote to acro-narcotic poisons.

347 Var. 3. *acida*.

THE SOUR LIME OF INDIA.

Vern.—*Jambira*, SANS.; *Linn., limoum*, ARAB.; *Libu, nebu, limbu, nimbu*, BENG., HIND.

Grown in Burma and Bengal.

This variety yields the juice used medicinally. A pickle of the fruit is an effectual medicine for indigestion.

348 Var. 4. *Limetta*.

THE SWEET LIME OF INDIA.

Vern.—*Mitha nebu*, BENG., HIND.; *Amrit-phai*, KUMAUN.

Commonly cultivated in most parts of India and Burma. Indigenous in the Nilgiris.

349 *Claviceps purpurea*, *Talsane*, FUNGI.

THE ERGOT.

Ergot is principally used on account of its specific action on the uterus in parturition. (*Pharmacographia*.)

Clearing Nut. See *Strychnos potatorum*, *Linn.*, LOGANIACEÆ.

CLEMATIS.

350 *Clematis nepalensis*, DC., RANUNCULACEÆ.

Vern.—*Pawanee, birri, wandak*.

Found in the temperate Himalaya from Garwhal to Bhutan. In Kanawar the leaves are said to act deleteriously on the skin.

CLEOME.

351 *Cleome pentaphylla*. See *Gynandropsis pentaphylla*, DC., CAPPARIDÆ.

C. viscosa, *Linn.*

Vern.—*Hoor-hooria*, BENG.; *Kuha-wominia*, TELING; *Fangli-kulvul*, DEC.; *Nay-kadughu*, TAM.

Abundant throughout tropical and warm India, and the rest of the world.

The juice of the leaves is poured into the ear to relieve ear-ache, and the bruised leaves are applied to the skin as a counter-irritant. The seeds are carminative.

Clerodendron infortunatum, Linn., VERBENACEÆ.

352

Syn.—VOLKAMERIA INFORTUNATA, Roxb.

Vern.—*Bhant, bhat, HIND.; Chit, NEPAL; Kadung, LEPCHA; Lukunah, MECHI; Khaoung-gyes, BURM.*

A pinkish-white flowered shrub common in waste places in the greater part of India and Burma. Grows gregariously, forming a dense under-vegetation, specially associated with the bamboo. On passing into fruit the calyx becomes scarlet, and then even more attractive than when covered with its faintly-scented flowers.

The whole plant is extremely bitter, and the leaves are considered an efficient anthelmintic.

C. serratum, Spreng.

353

Vern.—*Barangi, HIND.; Chá, NEPAL; Yi, LEPCHA; Bobya, baikyo, BURM.*

A blue flowered shrub common in the Sub-Himalayan tract from the Sutlej eastward to the Khásia hills, South India, and Burma.

Its root and leaves are officinal.

C. Siphonanthus, R. Br.

354

Vern.—*Barangi, HIND.; Bamanhatti, BENG.*

A large shrub with red calyx, white flowers, and blue berries, found in Kumaun, Bengal, and South India.

Mr. Home says the wood is tied round the neck by the Bengalis and used as a charm against various ailments. (*Gamble.*) It is slightly bitter and astringent, and employed in syphilitic rheumatism.

CLITORIA.**Clitoria Ternatea, Linn., LEGUMINOSÆ.**

355

Vern.—*Kaliser, visnukranti, kava-thenthí, HIND.; Aparajita, BENG.; Asphota, aprajita, nila ghiria, khurne, SANS.; Kújali, gokarn, BOM.; Kakkanan-kodi, TAM.*

A common garden flower, in every hedgerow all over India.

The root is a powerful cathartic like jalap, and has been recommended to be used along with other laxatives and diuretics in ascites and enlargements of the abdominal viscera. (*Dymock.*) Ainslie recommends it in croup as an emetic, but O'Shaughnessy, in *Bengal Dispensatory*, says "we have used the root extensively in order to test its alleged emetic effects, but have never observed their occurrence." "We cannot recommend" the use of this medicine. Moodeen Shariff is, however, much in favour of the root in the treatment of irritation of the bladder. The seeds are, however, more useful, and have gained a certain reputation in Europe as a safe medicine, especially for children. The powdered seeds are purgative and aperient. Combined with acid tartrate of potash and ginger they are administered in the same doses as jalap. The infusion of the leaves is used for eruptions. Great care is necessary in freeing the name *Kali-sirkí*, sometimes applied to the seeds of this plant, from being confused with the seeds of *Ipomoea hederacea* (which see).

Cloves. See *Caryophylus aromaticus, Linn., MYRTACEÆ.*

Cnidium diffusum. See *Seseli indicum, W. & A., UMBELLIFERÆ.*

Coccinia indica. See *Cephaelandra indica, Naud., CUCURBITACEÆ.*

COCCULUS.

Cocculus cordifolius, DC. See *Tinospora cordifolia*, Miers., MANIS-PERMACEA.

C. indicus. See *Anamita Cocchlea*, W. & A.

356 C. Leæba, DC.

Vern.—*Vallar-billar, parwatti, vehri*.

A large climber of the dry and arid zones, especially of West India ; the Punjab, Sind and the Carnatic.

Stewart says the stems often become as much as 3 or 4 feet in girth, and that it is used in Sind and Afghanistan in the treatment of intermittent fevers and as a substitute for *Coccus indicus*.

C. palmatus, DC. See *Jateorhiza palmata*, Miers.

357 C. villosus, DC.

Vern.—*Hier, dier, farid-bati*, HIND.; *Kursan, samir*, SIND.

A large climber of the dry and arid zones, Sind, Punjab, Deccan, extending into Madras and Bengal.

It possesses tonic properties.

COCCUS.

358 Coccus Cacti, Linn., HEMIPTERA.

THE COCHINEAL INSECT.

Vern.—*Kirmdana*, BENG., HIND.

This substance is the dried body of the female insect *Cocos Cacti*. It is imported from America and Central Asia, and also collected in small quantities in Rajputana and South India.

It is supposed to possess anodyne and antispasmodic properties.

COCHLEARIA.

359 Cochlearia Armoracia, Linn., CRUCIFERA.

A berbaceous annual, cultivated in Europe and North America.

The officinal product is imported into India and sold by European chemists. It is stimulant, sudorific and diuretic. Externally applied it is an irritant.

COCHLOSPERMUM.

360 Cochlospermum Gossypium, DC., BIXINAE.

Syn.—*BOMBAY GOSSYPIUM*.

Vern.—*Kumbi gabdi, galgal*, HIND.; *Gungu, hong*, TEL.; *Tanaku, kongillam*, TAM.

A small, deciduous tree in the forests at the base of the North-West Himalaya, from the Sutlej eastward, Central India, Deccan, Prome district in Burma.

The gum which this tree yields, *katira*, is used as a demulcent in coughs.

COCOS.

Cocos nucifera, Linn., PALMÆ.

361

THE COCOANUT TREE.

Vern.—*Narel, nariyel, HIND.; Narkel, BENG.; Tenna, tanga, TAM.
Narihadam, TEL.; Ong, BURM.; Sadhindada, AND.*

A pinnate-leaved palm cultivated throughout tropical India, particularly near the sea-coast.

"The green fruit is given as a refrigerant; the flowers as an astringent and the oil is an excellent substitute for cod-liver oil."—(Amsterd. Cat.)

Cod liver oil. See *Gadus Moorhus*, Linn., PISCES.

CODONOPSIS.

Codonopsis ovata. See *Wahlenbergia Roylei*, DC., CAMPANULACEÆ

362

Aitchison, in his *Kuram Valley Flora* (Linnean Journal, XIX, p. 147), says: "The roots and leaves of *Codonopsis* are made into poultices and employed in the treatment of bruises, ulcers, and wounds." They are also eaten, raw or cooked, by the natives along with bread.

COFFEA.

Coffea arabica, Linn., RUBIACEÆ.

363

COFFEE.

Vern.—*Bun, kahwa.*

A shrub with thin grey bark, indigenous in Abyssinia and Soudan, cultivated since the fifteenth century in Arabia and introduced thence to India. It has been cultivated in many parts of India, but on a large scale only in Mysore, Coorg, the Western Ghâts, and Ceylon.

It is used, like tea, as a stimulant all over the world.

COLCHICUM.

Colchicum autumnale, Linn., LILIACEÆ.

364

OFFICINAL COLCHICUM ; MEADOW SAFFRON.

Grows in the meadows throughout Europe. Attempts have been frequently made to introduce several species of *Colchicum* in India, but with very little success. Mr. Baden Powell says that in the Punjab a species of *Colchicum* is known as *Harantutiya*.

The fresh corm and the seeds of *Colchicum* are officinal. Their action is the same, the difference being in degree only; the flowers also have similar properties. "Colchicum acts as a stimulant on certain of the secreting organs, thus, on the intestinal canal, by which it becomes cathartic and emetic; on the genito-urinary organs as a diuretic; and on the liver as a cholalogue. As a consequence of this action a sedative effect follows, by which the heart's action is diminished. In improper doses it acts as a powerful acro-narcotic poison. It is chiefly valued as a remedy in gout and acute rheumatism and in other inflammatory affections. In dropsies and in obstinate skin diseases it

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has also been sometimes used with advantage. Colchicum has likewise been employed, but with doubtful benefit, in numerous other diseases, as hysteria, chorea, whooping cough, chronic bronchitis, in the lithic or uric acid diathesis, obstinate constipation, gonorrhœa, specially for the prevention of chordie, and for the expulsion of tapeworm."—(Bentley and Trimen.)

365

Colchicum variegatum, Linn.

Vern.—*Surinjan tulsi*, HIND., PERS.; *Aakhak*, ARAB.

In the *Botanical Magazine*, t. 1028, Planchon has figured and described the plant which yields the *Surinjan* bulb, identifying it as a *Colchicum*, an opinion which corroborates Sir W. O'Shaughnessy's observations regarding its medicinal properties. See *Hermadactylus*.

COLEBROOKIA.

366

Colebrookia oppositifolia, Sm., LABIATÆ.

Vern.—*Shakardana*, TRANS-INDUS; *Duss*, *sampun*, *suali*, *biali*, *Casuti*, *barmora*, HIMALAYAN NAMES.

A shrub with grey bark, common on the outer Himalaya, from the Indus to Bhutan, ascending to 4,000 feet.

The leaves are applied to wounds and bruises. (Stewart.)

COLEUS.

367

Coleus aromaticus, Benth., LABIATÆ.

Vern.—*Pâter-chûr*, BENG.

A native of the Moluccas, cultivated in gardens in many parts of India; has a pleasant, aromatic odour and pungent taste.

The plant is employed in Cochin China in asthma, chronic coughs, epilepsy and other convulsive affections. Dr. Wight says that the expressed juice is a powerful carminative, given in cases of colic in children. When it is given in colic and dyspepsia, it has been found to produce intoxicating effects.

Collodion. See under *Gossypium*.

COLOCASIA.

368

Colocasia antiquorum, Schott., AROIDEÆ.

Syn.—*ARUM COLOCASIA*.

Vern.—*Guri kachu*, BENG.; *Ghuya*, *avois*, HIND.; *Kachchi*, SANS.; *Qulqas*, ARAB.; *Shemakalengu*, TAM.; *Chema*, TEL.

Cultivated all over India on account of its corms, which are used as an important article of diet when boiled.

The pressed juice of the petioles is styptic, and may be used to arrest arterial hemorrhage. Dr. Bhulanath Bose reports very highly in favour of this property, and states that the wound heals by first intention after its application. (*Pharm. Ind.*) The sap of most species of this natural order possess acidity in the fresh state, but the active principle being volatile they soon lose their action. They are, however, used as external stimulants and rubefacients by the natives. A poultice of *tukapare*, BENG., *Pistia stratiotes*, L., being regarded as useful in piles.

Colocynth. See *Citrullus*.

Colocynthis, Schrad.

CONVOL-
VULUS.

COLUTEA.

Colutea nepalensis, Sims., LEGUMINOSÆ.

369

THE BLADDER SENNA.

Vern.—*Bráa*, LADAK.

A shrub of the arid valleys of the inner Himalaya.

The leaves of this plant are purgative, and are used to adulterate officinal senna.

COMBRETUM.

Combretum nanum, Ham., COMBRETACEÆ.

370

Vern.—*Dant játhi*, N. W. P.

A decumbent, low shrub of the Himalayan Terai from Sikkim to the Punjab.

Mr. Baden-Powell mentions this plant among his medicinal plants of the Punjab.

COMMELINA.

Commelina obliqua, Don., COMMELINACEÆ.

371

Vern.—*Kanjurá*, *kína*, HIND.

The root is useful in vertigo, fevers, and bilious affections, and as an antidote to snake-bites (*Atkinson*).

C. scapiflora, Roxb. See *Anemone tuberosa*, Ham., COMMELINACEÆ.

Conessi Bark. See *Holarhena antidysenterica*, Wall., APOCYNACEÆ.

Coniumm aculumatum, Linn., UMBELLIFERÆ.

372

SPOTTED HEMLOCK.

Vern.—*Showkrán*, ARAB.; *Keerdamána*, BOM.

Met with in Europe and temperate Asia; common in England.

The leaves and the ripe fruit possess narcotic, anodyne and antispasmodic properties; in overdoses, poisonous. Useful in coughs, rheumatic and neuralgic affections; both externally and internally in cancer; once highly esteemed as a valuable remedy for scrofula. An extract prepared of the juice of the unripe fruit is recommended as a local application to tumours. (*Pharm. Ind.*; *Dymock*.)

CONVOLVULUS.

Convolvulus arvensis, Linn., CONVOLVULACEÆ.

373

Vern.—*Vert (?) hiranpadi*, PB., HIND.; *Hirn-pug*, SIND.

An abundant weed all over the plains of the Punjab, and to 10,000 feet in the Punjab Himalaya.

The officinal *hiranpadi* appears to be this plant. The roots possess cathartic properties.

374 | **Convolvulus pluricaulis, Choi.**

Vern.—*Poprang, garakh pānī, baphallī, dodah, Pn.*

A common plant in many places throughout the plains of Punjab, Hindustan and Behar.

"It is eaten by cattle and is reckoned cooling, and used as a vegetable or given in sherbet." (Stewart.)

, **C. scammonia, Linn.**

SCAMMONY.

Vern.—*Mahmādah (?)*, *sakmunia*, *Pb.*; *Bugmoonia*, *HIND., SIND, ARAB., PERS.*

A climbing perennial, native of Syria, Asia Minor and Greece. Cultivated in some parts of India.

The juice of the roots is employed as an active cathartic, generally with calomel and colocynth. It is very useful as an anthelmintic, especially for children; also given in dropsy, torpor of the intestines, hypochondriasis and mania, and generally prescribed in combination with other purgatives. Is said to produce abortion. Used locally and internally in scorpion stings.

375 | **Copaiba or Copalva.**

An oleo-resin, obtained from several species of *Copaisera*, an American genus, imported into India.

This substance is used as a stimulant, acting chiefly on the mucous membrane of the genito-urinary organs. "In gonorrhœa it is a remedy of great value. It has likewise been used with advantage in gonorrhœal rheumatism, leucorrhœa, haemorrhoids, chronic cystitis, and in bronchorrhœa, chronic bronchitis, and other lung affections attended with excessive secretion." (Pharm. Ind.)

Copper. See *Capram*.

Copper sulphate. See *Capram*.

COPTIS.

377 | **Coptis Teeta, Wall., RANUNCULACEÆ.**

COPTIS, or MISHMI TITA.

Vern.—*Tita*, *Ass.*; *Mahmira*, *SIND.*

Met with in Mishmi Mountains, east of Assam, in temperate regions.

The dried root is recommended as a pure bitter tonic, useful in general debility, convalescence after fevers, nervous diseases, atonic dyspepsia, and in mild forms of intermittent fever. It has been found to produce excellent results.

First made known by Griffith during his Mishmi explorations. There seems every reason to think that this plant would prove a most valuable addition to our list of tonic medicines were the supply to be increased, & as to admit of its becoming better known. It is imported into the plain of India done up in small baskets about the size of a hen's egg. It is a remarkable fact that this, perhaps one of India's best indigenous medicinal plants, should, up to the present day, be almost unknown botanic ally. The plant has never been re-collected from its wild state since first made known.

***Corallocarpus epigaea*, Hook. f., CUCURBITACEAE.**

Syn.—*BRYONIA EPIGAEA*, Rottl.

Vern.—Akás-gaddah, HIND.; Gollan-kovaik, akásá-garudan, TAM.; Naga-donda, TEL.; Kollan-kóva-kishanna, MAL.; Akdsha-garu-da-gadde, KAN.

A plant met with in Punjab, Rawal Pinjree, Sind, Guzerat and Deccan Peninsula.

As an alterative tonic the plant is highly valued by the natives, who prescribe it in syphilitic cases and in dysentery. In Deccan it is known as a powerful remedy in snake-bite. (*Pharm. Ind.*)

Coral Plant. See *Jatropha multifida*, Linn., EUPHORBIACEAE.

CORCHQRUS.

***Corchorus Antichorus*, Reusch., TILIACEAE.**

Vern.—Baphálli, kírand, bophálli, baháphálli, babuna, PB.

A common plant wild in the Southern Punjab.

The plant is rubbed down and given as a cooling medicine. Leaves are emollient. Infusion used as a fever drink.

***C. capsularis*, Linn.**

Used indiscriminately with *C. olitorius*; generally known in Bengal as ghi-nalitha-pat.

***C. fascicularis*, Lam.**

Vern.—Hirankhori, bhanphálli, BOM.; Fungli-pat, bil-nalita, BENG.

The whole plant is very mucilaginous, astringent and restorative.

***C. olitorius*, Linn.**

JUTE.

Vern.—Pát, kashta, BENG.; Peratti-kirai, TAM.; Parinta, TEL.; Ban-phál, N. W. P. & PB.

It is extensively cultivated in Bengal.

The leaves and tender shoots are eaten, and in the dried state known as nalita; they are used in infusion by the natives as a domestic medicine, being tonic and slightly febrifuge, and hence used as a fever drink.

***C. trilocularis*, Linn.**

Vern.—Kuré chunts, BOM. The seeds *Raja-jira*.

A small annual plant, appearing in the rains along with *C. olitorius*, from which it is distinguished by its longer leaves, trilocular capsule and small seeds.

Dr. Dymock says in Bombay the seeds of this species, "which are bitter, are administered in doses of about 80 grains in fever and obstructions of the abdominal viscera."

CORDIA.

***Cordia Myxa*, Linn., BORAGINAE.**

Vern.—Lasora, bhokar, GONDI, HIND.; Dább, ARAB.; Sugpistan, PERS.; Bohari, bukhal, boho-dari, BENG.; Ninut, LEPCHA; Vidi, TAM.; Thanet, BURM.

A small tree on the Sub-Himalaya from the Chenab to Assam, ascending to 5,000 feet; also common on the mountains of Bengal, Burma, Central and South India.

CORIARIA.

The fruit, *Sebestan*, is officinal and given for coughs. It is very mucilaginous, and the mucilage of the fruit is demulcent and used in diseases of the chest and urethra, and also as an astringent gargle. The kernels are a good remedy for ringworms. The bark is a mild tonic. (*Lindley; Ainslie.*)

385 Cordia obliqua, Willd.

Syn.—*C. LATIFOLIA*, Roxb.

Vern.—*Chhotá-lasórá*, *chhotá-lasíasa*, HIND.; *Chhoto-bohnadri*, BENG.; *Mohkatab*, ARAB.; *Sugpistan*, PERS.; *Spiru-naruvili*, TAM.; *Chinna-botku*, TEL.; *Tana, tanusi*, BURM.

Found in Western India, from the Punjab and Hindustan to Ceylon.

The fruit is used as an expectorant and astringent.

386 C. Rothii, Röm. & Sch.

Syn.—*C. ANGUSTIFOLIA*, Roxb.

Vern.—*Gondi, gondni*, HIND.; *Liar, lidi*, SIND; *Narvilli*, TAM.

A small tree of the dry zones of North-West and South India.

The decoction of the bark possesses astringent properties and is used as a gargle.

387 C. vestita, Hook. f. & T. T.

Vern.—*Kumbi, karuk*, PA.; *Kum paimán, pin, indak, chinta, ajanta, bairula, berula*, HIND.

A small tree of the sub-Himalaya, the fruit of which is used similarly to the preceding, and when ripe is an article of food; it is considered better than that of *C. Myxa*.

CORIANDRUM.***Coriandrum sativum*, Linn., UMBELLIFERÆ.****CORIANDER**

Vern.—*Dhanyaaka*, SANS.; *Dhania*, BENG., HIND.; *Kusbarak, kurbusah*, ARAB.; *Kushnisi*, PERS.; *Kotamalli*, TAM.; *Danyolu*, TEL.; *Nau-nau*, BURM.

Cultivated all over India.

The medicinal properties attributed to this plant are many,—namely, carminative, refrigerant, diuretic, tonic, and aphrodisiac. The dried fruit and the volatile oil are used as an aromatic stimulant in colic. The seeds are chewed to correct foul breath.

CORIARIA.***Coriaria nepalensis*, Wall., CORIARIÆ.**

Vern.—*Masuri, makola*, HIND.; *Raselwa, archaru, pajerra*, SIMLA; *Bhajinsi*, NEPAL.

A deciduous shrub or small tree of the outer Himalaya from the Indus to Bhutan, ascending to 8,000 feet in the North-West, and to 11,000 feet in Sikkim.

Leaves are used to adulterate senna, and acts as a poison in large doses. The fruit is said to produce symptoms like tetanus.

CORYDALIS.

Corydalis Govaniana, Wall., FUMARIACEÆ.Vern.—*Bhutkis.*

398

Found in the Western Himalayas, altitude being 8,000 to 12,000 feet. The roots contain a principle, *Cordalia*. Sir W. O'Shaughnessy recommends them to be tried as a tonic and antiperiodic. (*Pharm. Ind.*)

C. ramosa, Wall.

Dr. Aitchison, in his *Flora of the Kuram Valley* (*Linnæan Journal XIX*, page 145), says that in Kurang this common Himalayan scrambling annual is employed medicinally by the natives in the treatment of eye diseases like all other plants with yellow sap. It is called *mamirdn*. It would be interesting to know if this plant is used medicinally in other parts of the Himalaya.

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CORYLUS.

Corylus Avellana, Linn., CUPULIFERÆ.

THE EUROPEAN HAZEL.

392

Vern.—*Bindak, bindak, HIND.; Chalgosa, PERS.*

Found in England, France and eastward to the Caucasus and Asia Minor.

The nut yields oil, used for coughs, &c. It is tonic, stomachic and aphrodisiac.

C. Colurna, Linn.

Vern.—*Urnī, winri, thangi, fangi, sharli, ban pdlu, kapasi, chatia badam, HIMALAYAN NAMES.*

393

A moderate-sized tree of the North-West Himalaya, between 5,500 and 10,000 feet.

The nuts are not uncommon in drug-sellers' shops, being considered tonic.

COSCINIUM.

Coscinium fenestratum, Colebr., MENISPERMACEÆ.

394

Vern.—*Jar-ke-haldi, HIND., DEC.; Maramunjil, TAM.; Manibus-supu, TEL.; Darvi, SANS. (Ainslie); Darvi, SANS. (U. C. Dutt) for Berberis sp.*

Western Peninsula, Central and South India; Malacca, Singapore, Ceylon.

Ainslie says:—" *Maramunjil* is the Tamil name of a round, yellow-coloured, bitterish root, common in the bazar, about one inch in circumference, employed in preparing certain cooling liniments for the head, and is also used as a yellow dye; it is brought from the mountains, but I have endeavoured in vain to ascertain the plant." At present the root is extensively used in the hospitals of the Madras Presidency as an efficient bitter tonic.

CRINUM.**COSTUS.**

- 395 Costus Arabicus.** See *Saussurea hypoleuca*, *Spreng.*, *SCITAMINEÆ*.
C. speciosus, Sm.

Vern.—*Kust, kou, BENG.* (in Roxburgh).

The root is given as a depurative and aphrodisiac. There seems, however, to be much confusion with this plant and the supposed *Costus* of the ancients, *Aucklandia Costus, Falc.*, now reduced to *Saussurea Lappa, C. B. Clarke*; a member of the *Compositæ*. Both apparently bear the vernacular name of *Kust*.

COTULA.

- 396 Cotula anthemoides, Linn., COMPOSITE.**

Vern.—*Babuna, PB.; Baboona, HIND.*

This plant would appear to grow in the eastern part of the Punjab plains.

It furnishes part of the officinal *babuna*, which is heated with oil and applied externally in rheumatism, &c.

CRATAËVA.

- 397 Crataëva religiosa, Forst., CAPPARIDÆ.**

Vern.—*Brarna, bilasi, bila, HIND.; Barun, tiktashat, BENG.; Maraligam, TAM.; Uschia, urumatti, TEL.; Kadit, katal, BURM.*

A moderate-sized, deciduous tree of the Sub-Himalayan tract from the Ravi eastward, Bengal, Assam, Central and South India, and Burma.

"The bark of the stem and root of this plant form the principal medicine for calculus affections. It is said to promote the appetite, increase the secretion of the bile, act as a laxative, and remove disorders of the urinary organs." (U. C. Dutt.) "In Bombay the leaves are used as a remedy for swelling of the feet, and a burning sensation in the soles of the feet." (Dy whole mock). An infusion of the fresh or dried leaves is slightly bitter and aromatic, and possesses stomachic properties.

C. Tapia, Linn.**GARLIC PEAR.**

Vern.—*Birmi, kurwan, HIND., MAR.; Varvunna, SANS.; Burna, PB.*

Met with in Bundelcund, Rajputana, Assam, Burma and Bengal. It is also found in the east of the Punjab.

The bark is bitter and tonic. The juice of the bark is used in South India in intermittent and typhus fevers.

CRINUM.

- 399 Crinum asiaticum, var. *toxicarium*, Herb., AMARYLLIDÆ.**

Vern.—*Chindar, kanwal, pindar, kanmu, HIND.; Sookhdarsan, BENG.*

Grows in the low humid localities in Bengal, Konkan, and other parts of India.

The fresh root of the plant is emetic; in small doses ~~purgeant~~ and diaphoretic.

CROCUS.

Crocus sativus, Linn., IRIDÆ.

400

SAFFRON.

Vern.—*Kunkum*, SANS.; *Safran*, BENG.; *Kesar, safran*, HIND.; *Zaafarán*, ARAB., PERS.; *Kungumapu*, TAM.; *Kunkum apave*, TEL.; *Thanwas*, BURM.

This is chiefly brought from Persia and Kashmir.

As a medicine it is used in fevers, melancholia, and enlargement of the liver. It has also stimulant and stomachic properties, is highly thought of as a remedy for catarrhal affections of children, and is used in certain Indian dishes to give them a color. Mullahs (priests) make a kind of ink with this substance with which they write charms. (Dr. Emerson).

CROTALARIA.

Crotalaria Burhia, Hamilt., LEGUMINOSÆ.

401

Vern.—*Sis, sassi, meinī, pola, khippi, buta, khop, khip, thata, but, lataia, kharsan kauriāla*, PB.

Sind and Punjab, in sandy plains, ascending to 4,000 feet; Cambay in the desert region.

The branches and leaves are used as a cooling medicine.

C. juncea, Linn.

402

INDIAN HEMP or SUN HEMP.

Vern.—*Sun, BENG., HIND.; Janab-ka-nar, DEC.; Jenappa-nar, TAM.; Jenapa-nara, TEL.; Pan, BURM.*

Extensively cultivated all over India.

Seeds of the plant are used to purify the blood.

C. medicaginea, Lamk.

403

Vern.—*Gulabi*, PB.

Official in Punjab and sold in the bazaars under the name *gulabi*.

CROTON.

Croton caudatus, Müll.-Arg., EUPHORBIACEÆ.

404

Syn.—*C. DRUPACEUM*, Roxb.

Vern.—*Nan bhantr*, BENG.; *Takchâbrik*, LEPCHA; *Wusta*, URIBA.

A large, straggling shrub of Bengal, Assam, Burfha, and South India, chiefly on the banks of tanks.

Mr. Hume says the leaves are applied as a poultice to sprains.

C. Eluteria, Bennett.

405

CASCARILLA.

Indigenous in the Bahamas.

The bark has aromatic, tonic, and bitter properties. It is used in the form of infusion in general debility, atonic dyspepsia, and the advanced stages of diarrhoea and dysentery. Formerly employed in intermittent fevers. Imported into India and prescribed chiefly by European physicians.

CUCUMIS.

- 406 Croton oblongifolius, Roxb., and C. Pavane, Ham.**
The seeds of these species are purgative.

- 407 C. Tinctoria, Linn.**

THE PURGING CROTON.

Vern.—*Kyapal*, BENG.; *Famalgata*, HIND.; *Jayapala*, SANS.; *Habbus-salatin*, ARAB.; *Nervalam*, TAM.; *Nepala-vittula*, TEL.; *Kanakho*, BURM.

A small tree cultivated in many parts of India and Burma.

The seeds are used as a powerful drastic purgative, and the oil is regarded as a valuable medicine. In overdoses they act as an acronarcotic poison. When externally applied they act as stimulant and rubefacient. Croton oil is said to possess powerful hydragogue cathartic properties. It acts externally as rubefacient and counter-irritant. It is useful in dropsy, obstinate constipation and apoplexy.

Crown Bark. See *Cinchona Condaminea*, *Huml.*, RUBIACEAE.

CROZOPHORA.

- 408 Crozophora plicata, Mill.-Arg., EUPHORBIACEAE.**

Vern.—*Put kanda*, *nilkhanti*, PB.

It occurs sparingly in the plains of the Central and South Punjab.

The ashes of the root are given to children for cough. The leaves are considered depurative. The seeds are used as purgative.

- 409 C. tinctoria, Mill.-Arg.**

Vern.—*Tappal buti*, *nilam*, *kukronda*, PB.

Common in the Central, South, and West Punjab, where it is said to be used as a medicine.

Cubeba officinalis, Miq. See *Piper Cubeba*, *Linn.*, PIPERACEAE.

CUCUMIS.

- 410 Cucumis Melo, Linn., CUCURBITACEAE.**

THE MELON.

Vern.—*Kharbusa*, HIND.; *Kharmuj*, BENG.; *Basrul qissa*, ARAB.; *Tukhme-khiyor*, PERS.; *Vellari-aerai*, TAM.; *Mulam-pandu*, TEL.; *Takhvasi*, BURM.

Extensively cultivated in the North-Western Provinces. M. A. De Candolle, in his recent work on the origin of cultivated plants, indicates North-West India, Beluchistan, and perhaps also west tropical Africa, as the countries where the Melon seems to have existed in a wild state.

The seeds are supposed to be a cooling medicine. They are edible, nutritive and diuretic, and used in painful discharge and suppression of urine. This may in fact be said of all the species of *Cucumis* indicated; it seems doubtful if medicinally they are distinguished.

- 411 C. Melo, Linn. forma, Momordica.**

Vern.—*Phut*, or *phunt*, *hachra* (when unripe), *tuti*, HIND.; *Phuti*, BENG.; *Kahari-kai*, TAM.; *Pedda-kai*, TEL.

Commonly cultivated in Lower Bengal.

The seeds are used as a cooling medicine. The fruit is cylindrical and quite smooth, and when ripe bursts spontaneously. It is about 1 foot to 2 feet long and 3 to 6 inches in diameter. The seeds are smaller than those of the true Melon (*Dushie* and *Fuller.*)

Roxburgh says :—"The fruit is much eaten by natives and Europeans when young they are a good substitute for the common cucumber, and when ripe (after bursting spontaneously) with the addition of a little sugar they are little inferior to the Melon, and reckoned very wholesome."

Cucumis Melo, Linn. forma, utilissimus.

412

Syn.—*C. UTILISSIMUS, Roxb.*Vern.—*Kabri, kabri reti, N. W. P.*

Roxburgh says of this plant : "This appears to me to be by far the most useful species of *Cucumis* that I know; when little more than grown, they are oblong, and a little downy. In this state they are pickled; when ripe they are about as large as an ostrich's egg, smooth and yellow; when cut they have much the flavour of the melon, and will keep good for several months if carefully gathered without being bruised and hung up; they are also in this stage eaten raw and much used in curries by natives."

"The seeds, like those of other cucurbitaceous fruits, contain much farinaceous matter, blended with a large proportion of mild oil; the natives dry and grind them into meal, which they employ as an article of diet; they also express a mild oil from them, which they use in food, and to burn in lamps. Experience, as well as analogy, prove these seeds to be highly nourishing and well deserving of a more extensive culture than is bestowed on them at present."

C. sativus, Linn.

413

THE CUCUMBER.

Syn.—*C. HARDWICKII, Royle.*Vern.—*Khira, HIND.; Sasa, BENG.; Sukasa, SANS.; Muhevshri, TAM.; Dosa-haia, TEL.*

There seems no doubt that the original home of the cucumber was in North India (*i. e. DC. L'Orig., Pl. Cult.*) Its cultivation in India can at least be traced to very ancient times.

There are many varieties, one a creeping plant cultivated in the fields during the hot season, another a climber cultivated in homesteads during the rains. The rainy season varieties have much larger fruits and are more like the English cucumber. The fruit is extensively used as food. A curious variety to which *Royle* gave the specific name of *C. Hardwickii* is found growing wild on the Himalaya at low elevations. This is the *air alu* of Kumaun, and the *pahari indrayán* of the plains (*Duthie and Fuller*). The seeds possess cooling properties. They are also used as diuretics.

C. trigonus, Roxb.

414

Syn.—*C. PSKUDO-COLOCYNTHIS, Royle.*Vern.—*Bislambi, bislambhi, jangli-indrayán, HIND.; Kéttut-tumatti, TAM.; Adavipuch-cha, TEL.*

Met with throughout India.

Supposed to possess the purgative properties of Colocynth.

CUCURBITA.

Cucurbita Citrullus, Linn. See *Citrullus vulgaris, Schrad.*, CUCURBITACEAE.

C. lagenaria, Linn. See *Lagenaria vulgaris, Linn.*

PUM.

415

Cucurbita maxima, Duchesne.**SQUASH GOURD.**

Vern.—*Mitha kadu*, HIND.; *Suphurd-katura*, BENG.; *Pushnik-kay*, TAM.;
Gummadi-kdyā, TEL.; *Shawepha-young*, BURM.

Cultivated all over India for its fruit.

The seeds are used medicinally. The oil is used as a nervine tonic.

416

C. Pepo, DC.**THE PUMPKIN.**

Syn.—C. PEPO. Roxb. included this plant (the Pumpkin), as well as
Benincasa cerifera, Sav., the White Melon.

Vern.—*Kumra*, HIND., BENG.; *Majdabah*, ARAB., PERS.

Cultivated throughout India. The following may be given as the characters which on comparison will be found to separate this plant from *Benincasa cerifera* :—Male, flowers large, solitary; corolla hardly cut half-way down into 5 petals; stamens 3, inserted low down in the calyx; anthers connate.

The seeds are supposed to possess anthelmintic properties. The *Pharmacopæia of India* advocates trials of these seeds being made.

CUMINUM.

417

Cuminum Cyminum, Linn., UMBELLIFERÆ.

Vern.—*Zirā*, HIND.; *Firaka*, SANS.; *Zirā*, BENG.; *Kamán*, ARAB.; *Zird*, PERS.; *Siragam*, TAM.; *Firaka*, TEL.

Extensively cultivated in Rajputana and other parts of Upper India.

As a medicine cumin seeds are considered aromatic, carminative, and stimulant. They are also stomachic and astringent and useful in dyspepsia and diarrhoea.

CUPRESSUS.

418

Cupressus sempervirens, Linn., CONIFERÆ.**CYPRESS.**

Vern.—*Sarā*, *sardā*, HIND.

A tall tree cultivated in gardens in Afghanistan and North India, sometimes reaching 6 to 9 feet in girth, and 70 to 100 feet in height.

Wood and fruit are regarded as astringent and anthelmintic.

CUPRUM.

419

Cuprum.**COPPER.**

Vern.—*Taubak*, HIND., DEC.; *Tamra*, BENG., SANS.; *Nohás*, ARAB.; *Mis*, PERS.; *Shenbú*, TAM.; *Rági*, TEL.; *Kaiyo-ni*, BURM.

The Sulphate of Copper is used medicinally as a tonic and astringent, and in large doses as an emetic. This is an irritant poison. It is largely used in chronic dysentery, diarrhoea, epilepsy, chorea and hysteria. Locally it is applied in solution in gonorrhœa, leucorrhœa, purulent ophthalmia, weak ulcers, superficial haemorrhage, and, in substance, to *cagrum oris*, aphthous ulcerations, exuberant granulations, and granular (Pharm. Ind.)

CURCULIGO.

Curculigo orchoides, Gaertn. See **Hypoxis orchoides**, AMARYLLIDÆ.

Most authors refer the native medicinal tuber known in the Punjab as *mûsli siyâh* to this plant (Atkinson), but Stewart says it is obtained from *Anilema tuberosa*, Ham. In Bengal this tuber is generally known as *Tal-lura*.

CURCUMA.

Curcuma Amada, Roxb., SCITAMINÆ.

MANGO GINGER.

420

Vern.—*Am-haldi*, HIND.; *Karpura-haridra*, SANS.; *Amada*, BENG.; *Am-kî bô-kî-adrak*, DEC.; *Mamidi-allam*, TEL.

Found wild in Bengal and on the hills.

Regarded as cooling medicine, useful in prurigo. Roots are also employed as carminative and stomachic.

C. angustifolia, Roxb.

421

WILD OR EAST INDIA ARROWROOT.

Vern.—*Tikhur*, HIND.; *Ararut-ke-gadde*, DEC.; *Ararut-kishangu*, TAM.; *Ararut-gaddalu*, TEL.

"The wild rhizome called *Tikhur* is found in the hills, samples of which have been received from Palamow and the Central Provinces."—(Amsterd. Cat.) Flowers are described by Voight as being bright yellow with a purple tuft. They expand in the morning and wither away at night of the same day. The tubers are reported to be used medicinally.

C. aromaticâ, Salisb.

422

WILD TURMERIC; YELLOW ZEDOARY; COCHIN TURMERIC.

Syn.—*CURCUMA ZEDOARIA*, Roxb.

Vern.—*Jungli-haldi*, *ban-haldi*, *ban-haridra*, SANS., HIND.; *Ban-halud*, BENG.; *Ran haldi*, *kanchorâ*, BOM.; *Kasturi-manjal*, TAM.; *Kasturi-pasupu*, TEL.; *Kiyâsanoin*, BURM.

The round, short rhizomes of this plant are of a pale yellow colour, and possess at all times an agreeable fragrant smell and a warm aromatic taste.

Used medicinally, being regarded as tonic and carminative. They also hold an important place in native perfumery.

C. longa, Roxb.

423

TURMERIC.

Vern.—*Haldi*, HIND.; *Halud*, BENG.; *Haridra*, SANS.; *Kurkum*, *ooru-kesâfûr*, ARAB.; *Zard-choba*, PERS.; *Manjal*, TAM.; *Pasupu*, TEL.

Turmeric is extensively cultivated all over India for its rhizomes. It is the well-known *haldi* universally used as a condiment with curry-stuffs, and one of the most profitable of crops. The average net profit on an acre of turmeric is about Rs. 31 (Atkinson).

It is used as a stimulant in native medicine; externally applied in pains and bruises, and internally administered in disorders of the blood. Its use as an external applicant in bruises is perhaps its most frequent

Economic Products of India.

medicinal application. The fresh juice is said to be an anthelmintic. The fumes of the burning root are also regarded as useful in the treatment of coryza, and in decoction they are also applied to relieve catarrh and purulent ophthalmia (Atkinson).

A paste made of the flowers is used in ringworm and other parasitic skin diseases.

424 Curcuma rubescens, Roxb.

Yields an excellent starch, which is a good substitute for arrow-root. (Voight's Hort. Suburb. Calcut., page 564.)

425 C. Zedoaria, Roscoe (non-Roxb.).

THE LONG AND THE ROUND ZEDOARY.

Syn.—C. ZERUMBET, Roxb.

Vern.—Kachura, HIND.; Sati, shori, kachur, SANS., BENG.; Zuranabād, ARAB.; Kashkār, PERS.; Kachora, BOM.; Koch-chilich-kishangū, TEL.; Kichlie-gaddala, TEL.; Thanu-men, BURM.

Found wild in moist forests.

The rhizomes possess aromatic, stimulant, and carminative properties. Employed in native practice as a stomachic, and also applied to bruises and sprains.

426 C. Zerumbet, Roscoe (non-Roxb.).

Vern.—Bach, maha-buri-buch, BENG.

The rhizomes of this plant are warm and aromatic, and are largely used in native medicine.

CUSCUTA.

427 Cuscuta reflexa, Roxb., CONVOLVULACEÆ.

THE DODDER.

Vern.—Haldi-algusi-jutta, algusi, BENG.; Nila tārī, niradhár, sarbháti, PB. Bazar names for seed Akas-bel, áftimán, kasús, HIND., PB.; Akas-pawan, amarwel, DEC.

An extensive herbaceous climber, germinating in the soil, but becoming parasitic on the trees on which it is met with, often covering them to such an extent as to become injurious, if not to cause death. It is chiefly met with upon *Zizyphus*, *Adhatoda*, *Ficus*, &c. The flowers are sweetly scented. The seeds are regarded as carminative, and for this purpose are boiled and placed over the stomach; they are also applied as an anodyne. A cold infusion is given as a depurative. They constitute part of the *Kasús* or purgative medicine sold in the Punjab. (Stewart.) The native doctors of Sind and the Punjab regard the seeds of this plant as alterative, used along with *Sarsaparilla* to purify the blood. The natives having observed that the plant severs its connection from the earth, and not having discovered the existence of parasitic roots, viewing the attaching suckers most probably as accidental, have a proverb that he who finds the roots of this plant will become possessed with boundless wealth and of the power of invisibility. (Murray.) It is probable that the seeds of *Cassytha filiformis*, Linn., are sold and used indiscriminately with those of this plant under the vernacular name of *Akas-bel*.

Cusparia bark. See Galipea Cusparia, St. Hil., RUBIACEÆ.

“... See *Entomophytum antelmintica*, DC., ROSACEÆ.

CYAMOPSIS.

Cyamopsis psoraloides, DC., LEGUMINOSÆ.

428

Vern.—*Gowar*, HIND.

Cultivated in the North-West Provinces as a rain crop. It is a robust, erect annual, 2 to 3 feet high.

CYANANTHUS.

Cyananthus, sp. CAMPANULACÆ.

429

Vern.—*Murra*, PB.

"A plant with pretty blue flowers, growing at 10,000 to 12,000 feet in Chumba.

"The calyces are eaten, being mawkish-sweet, and are said to be good for asthma." (*Stewart Pb. Pl.*)

CYBIUM.

Cybum Commersonii, Cuv. & Val.

430

SEIR FISH.

The oil might be used like cod or shark liver oil.

Cycas Rumphii, Miq., CYCADACEÆ.

431

Syn.—C. CIRCINALIS, Willd.; Roxb. Fl. Ind. iii, 744.

Vern.—*Mongtai*, BURM.

An evergreen palm-like tree in the forests of South Tenasserim and the Andaman Islands, often cultivated in South India.

"The wood yields a good quality of sago or starch; the seeds are in Ceylon made into flour. Exudes a good sort of resin, which is applied to malignant ulcers, and which excites suppuration in an incredibly short time. (*Kurs.*)

CYDONIA.

Cydonia vulgaris, Pers., ROSACEÆ.

432

THE QUINCE.

Syn.—PYRUS CYDONIA, Linn.

Vern.—*Biki*, HIND.; *Bamtsunt*, *bamsutu*, KASHMIR.

Cultivated in Afghanistan and the North-West Himalayas up to 5,500 feet.

The seeds act as demulcents, and are used by the natives in diarrhoea, dysentery, sore throat, and fever. The dried fruit is used as a refrigerant. "The sweet and sub-acid quinces are commonly eaten as a fruit by the Arabs and Persians, and are considered tonic, cephalic, and cardiacal; they are also eaten baked. The leaves, buds and bark of the tree are domestic remedies among the Arabs on account of their astringent properties. In India they are considered cold, moist, and slightly astringent, and are one of the most popular remedies in native practice, the mucilage being prescribed in coughs and bowel complaints as a demulcent; externally it is applied to scalds, burns and blisters." (*Dymock.*)

433

Cymbopogon citratum, DC. See *Andropogon citratum, DC.*, GRAMINEÆ.

C. laniger, Desf. See *Andropogon laniger, Desf.*

C. Martini, Munro. See *Andropogon Schoenanthus, Linn.*

C. Naidus, Linn. See *Andropogon Naidus, Linn.*

CYNODON.

434

Cynodon Dactylon, Pers., GRAMINEÆ.

KEEPING CYNODON.

Syn.—*AGROSTIS CYNOSUROIODES* in Baden-Powell's *Punjab Products*.

Vern.—*Durva, SAN.*; *Durba, BENG.*; *Hariati, DEC.*; *Arugam-pullu, TAMIL.*; *Garika-kasuvu, TEL.*

Grows in moist places throughout India, being, perhaps, the most abundant and most useful grass of India.

"The juice of the green grass is considered a good remedy for dysentery."—(*Amsterd. Cat.*) The decoction of the roots and the young leaves is useful in fever.

CYNOGLOSSUM.

435

Cynoglossum micranthum, Desf., BORAGINÆ.

Vern.—*Nilakrái, PB.*

Found in North India and the Himalaya, altitude 1,000 to 8,000 feet, from Kashmir to Bhutan and Pegu; common.

The plant is officinal in Punjab.

CYNOMETRA.

436

Cynometra ramiflora, Linn., LEGUMINOSÆ.

Vern.—*Iripa, MAL.*

Found in Malabar.

The root is purgative. A lotion is made from the leaves boiled in cow's milk, which, mixed with honey, is applied externally in scabies, leprosy, and other cutaneous diseases. An oil is also prepared from the seeds, used for the same purpose.—*Rheede (Drury U. P.)*

CYPERUS.

437

Cyperus pertenuis, Roxb., CYPERACEÆ.

Syn.—*MARISCUS CYPERUS.*

Vern.—*Núgar-mótha, HIND.*; *Nagar-mutha, BENG.*; *Sooade-kháfi, ARAB.*; *Muski-sámen, PERS.*; *Nagar-motah, DEC.*; *Muttah-kách, TAMIL.*; *Tung-gaddala vím, TEL.*; *Vomon-niu, BURM.*

A delicate, slender grass, met with in damp places in Bengal, Oudh, and rare in the Punjab.

The root is officinal, and considered cordial, stomachic, and desiccant, and is used for washing the hair. Also regarded as diaphoretic and diuretic.

Cyperus rotundus, Linn.

Syn.—*C. hexastachyos*, Roxb.

Vern.—*Mutha*, BENG.; *Kore-kh-jhár*, HIND.; *Koray*, TAM.; *Shakha-tungu-viru*, TEL.

Found in moist places.

Roots are used medicinally as a diaphoretic and astringent. Stimulant and diuretic properties are also attributed to them. They are further described as vermifuge. In native practice, they are held in great esteem as a cure for disorders of the stomach and irritation of the bowels.

CYTISUS.*Cytisus scoparius*, Linn., LEGUMINOSE.

A common shrub in Great Britain, occasionally to be seen in the gardens at hill stations in India.

A decoction made from the fresh and dried tops is diuretic and mildly laxative. The medicine is imported into India and sold by all druggists.

DAEMIA.*Dæmia extensa*, R. Br., ASCLEPIADEÆ.

Vern.—*Utran, jutuk*, HIND.; DEC.; *Chhigul-bati*, BENG.; *Vellip-parutti, uttāmani*, TAM.; *Jittupaku, gurti-chettu*, TEL.; *Hala-kbratige*, KAN.

A twining, shrubby plant, found wild in Bengal and in the Himalaya (from Darjeeling to Nepal), and one of the commonest weeds in the Deccan.

The plant has emetic and expectorant virtues, and is extensively employed by the natives in the diseases of children.

DALBERGIA.*Dalbergia Sissoo*, Roxb., LEGUMINOSE.

THE SISOO.

Vern.—*Sisam, sisu, sissai*, HIND.; *shisu*, BENG.; *Tali, safedar*, PB.; *Sissai, OUDH*; *Nukku-kattai, yette*, TAM.; *Sissu-karra*, TEL.; *Sasam, sasem*, ARAB.

A large, deciduous tree of the Sub-Himalayan tract, from the Indus to Assam, ascending to 3,000 feet.

The raspings of the wood are officinal, being considered alterative.

Dammar, Black. See *Canarium strictum*, Roxb., BURSERACEÆ.

Dammar, White. See *Vateria indica*, Linn., DIPTEROCARPEÆ.

Dandelion. See *Taraxacum officinale*, Wiggers., COMPOSITE.

DAPHNE.*Daphne Mezereum*, Linn., THYMELÆCÆ.

Vern.—

The "Mezereum," with deciduous leaves, is a well-known European shrub.

DATURA.

The bark is alterative and sudorific, useful in venereal, scrofulous and rheumatic diseases. This is said by Murray to be common in the Punjab Himalaya, and cultivated in gardens as an ornamental shrub. It may be cultivated, but is certainly not a wild plant, on the Himalaya.

443

Daphne mucronata, Royle.

Vern.—*Peck, SIND.; Kutili, kanthan, gandaián, maská, shalangí, niggí, channí shí, hak, sasho, PB.; Lagháne, ARG.*

A small, evergreen shrub of the Sulaiman Range, altitude from 3,000 to 7,000 feet; Himalaya from 2,300 to 9,000 feet.

The bark and leaves are used in native medicine. The berries are eaten to induce nausea. It is probable that the preceding, as also the following, species are only forms of this plant, if, indeed, they are distinct from it. Stewart refers to this plant as hurtful to camels, making the same observation as was made by Aitchison in Kuram. Stewart further says the bark is used by women in Kanáwar for washing their hair, and adds that it has been tried for paper-making.

444

D. oleoides, Linn.

Vern.—

Inner and outer ranges of the Himalaya.

Aitchison, in his *Flora of Kuram Valley*, says that the roots of this plant are used internally, when boiled, as a medicine, being purgative. He in another place says: "Camels will not eat this shrub except when very hungry. It is poisonous, producing violent diarrhoea. I feel certain that much of the mortality of camels in the Kuram division was due to the prevalence of this shrub."

DATISCA.

445

Datisca cannabina, Linn., DATISCAE.

Vern.—*Akalber, HIND.; Bhangjala, PB.*

A tall, erect herb, resembling hemp, hence the specific name; met with in the Punjab Himalaya.

Medicinally acts as a sedative in rheumatism. As a bitter and purgative, used sometimes in fevers and in gastric and scrofulous complaints. In intermittent fevers, administered in doses of from 5 to 15 grains (*Dymock.*)

DATURA.

446

Datura fastuosa, Linn., SOLANACEÆ.

BLACK DATURA.

Vern.—*Kala dhárá, BENG., DEC., HIND.; Dátárhus, SANS.; Tous-maslo-aswad, ARAB.; Taturah-e-siyah, PERS.; Karu-umate, TAMIL.; Nalla-ummetta, TEL.; Pad-daiing-phu, paddyinkhatta, BURM.*

A small shrub, found all over India, in waste places, with purple flowers.

This is by the natives considered a better variety than the white; the *Pharmacopœia of India* thinks there is no foundation for this opinion.

It is used as a narcotic anodyne in asthma, bronchitis and emphysema. The leaves act as antispasmodic when smoked by persons labouring under asthmatic complaints.

The seeds constitute a favourite poison for criminal purposes. The seeds and their preparations are generally employed by the Indian road

poisoners not for the purpose of destroying life, but for stupifying their victims with the view of committing theft. Death may follow as a consequence of over-dose. (*Kani Lal De.*) (See *Chevers' Jurisprudence*.) They are also used to render liquor more intoxicating, being burned upon charcoal with vessels inverted to catch the smoke. The seeds are also used in the form of a powder for the same purpose, being more powerful in this form. When full of smoke the liquor is thrown into the vessel and the mouth covered over for a night. It seems remarkable that when thus burned the smoke should retain the same poisonous and intoxicating properties. A few seeds with a *ágargarha* (*Anacyclus Pyrethrurus*) root and cloves are chewed as an aphrodisiac. (*Dr. Emerson.*)

The seeds, leaves and fresh juice are narcotic, anodyne and anti-spasmodic. They are more powerful than those of *D. alba*, both of which, however, are used in the treatment of mania, epilepsy and obstinate headache. An alkaloid, *Datuine*, is useful as a substitute for Belladonna, and is prepared from the seeds. (*Kani Lal De Bahadur.*)

var. *alba*.

WHITE DATURA.

| 447

Syn.—*D. ALBA*, *Nees.*

Vern.—*Safed-dhatura*, HIND.; *Dhatura*, BENG.; *Yous-masle-abyas*, ARAB.; *Tatruha-safed*, PERS.

A large, spreading annual, 2 to 4 feet high, with flowers white or nearly so, found throughout India.

The leaves of this form, or preferentially of the preceding, are applied as local anaesthetics. Heated they are applied locally in painful affections of the eye. The whole plant is poisonous; taken in excess it produces maniacal delirium.

Datura Metel, Linn.

Vern.—*Dhatura*, BENG.

Found in the Western Himalaya and mountains of West Deccan Peninsula; introduced into India. Widely naturalised in the Old World; produces flowers and seeds the whole year.

Dr. Birdwood mentions this plant in his list of drugs. It possesses properties similar to those of the other species.

D. Stramonium, Linn.

| 449

STRAMONIUM OR THORN APPLE.

Vern.—*Sada dhátiád*, BENG.; *Umatai*, TAM.; *Ummetta*, TEL.

Temperate Himalaya, from Kashmir to Sikkim.

The seeds are used criminally, but are also given medicinally, especially in asthmatic complaints. The leaves are applied to boils and ulcers, and are smoked with tobacco for asthma. The uses are in fact very similar to those of *D. fastuosa*. All Daturas produce dilatation of the pupil, and have been recommended as substitutes for Belladonna.

var. *Tatula*, flowers purple.

450

The young fruits, strung on threads and imported into India from Persia, seem to be those of this species. It is common everywhere around the villages of Afghanistan. The name by which these young fruits are sold is *sharbhuli* in Bombay and *maratia mágħa* in Madras. (*Ainslie, Mat. Ind., II, 185.*) They are said to be sedative and slightly intoxicating.

DENDROCALAMUS.**DAUCUS.**

- 451. *Daucus Carota, Linn., UMBELLIFERÆ.***

THE CARROT.

Vern.—*Gajar, HIND.; Garjara, SANS.; Yasar, ARAB.; Zardak, PERS.; Gajjara, manjal-mullangi, TAM.; Pitta-kanda, TEL.*

Cultivated in many parts of India as an article of food.

The seeds are considered to be a nervine tonic. Boiled with honey and fermented, they produce a spirituous liquor. A decoction of the leaves and seeds is said to be used by natives as a stimulant to the uterus during parturition. The roots are made into a marmelade and considered refrigerant. (*Dr. Emerson.*)

DELPHINIUM.

- 452. *Delphinium Brunonianum, Royle, RANUNCULACEÆ.***

Vern.—*Sapfall, laskar, spet, panni, PB.*

Common in parts of the Punjab Himalaya, at from 14,000 to 18,000 feet.

It is prized for its strong scent of musk. It is offered to the presiding idol of the hill temples.

Aitchison, in his *Flora of Kuram Valley (Linnaean Journal, XVIII., p. 25)* says that the juice of the leaves of this plant are used in Kuram to destroy ticks in animals, but chiefly when they affect sheep.

- 453. *D. caeruleum, Jacq.***

Vern.—*Dakhang, PB.*

A slender plant with light blue flowers, common on the Sutlej at from 5,500 to 8,000 feet.

The root is applied to kill the maggots in the wounds of goats.

- 454. *D. denudatum, Wall.***

Vern.—

The root of this plant is said to be chewed by the Bissahiris for tooth-ache, but on Sundays only. (*J. L. Stewart.*)

- 455. *D. saniculaefolium, Boiss.***

Vern.—*Asbag, ghafis, PB.*

A small, herbaceous plant, met with on the Himalaya, on dry hills from Jhelum to the Indus and distributed to Afghanistan.

The flowers are bitter and are given as a febrifuge.

DENDROCALAMUS.

- 456. *Dendrocalamus strictus, Nees, GRAMINEÆ.***

Vern.—*Bans, bans-kaban, kopar, HIND.; Karail, BENG.; Bas, udha, ROM.; Kanka, TEL.; Myinsua, BURM.*

This beautiful bamboo has strong stems, elastic, nearly solid, 20 to 100 feet high. The silicious matter found near the joints is officinal, and used as a cooling, tonic and astringent medicine.

The leaves are given to animals during parturition, from a supposition that they cause a more rapid expulsion of the placenta (*Dr. Emerson.*)

Deodar. See *Cedrus Deodara*, *Loudon*, *CONIFERA*.

DESMODIUM.

Desmodium gangeticum, *DC.*, *LEGUMINOSA*.

457

Vern.—*Sarioan*, *HIND.*; *Salaparni*, *SANS.*; *Salpani*, *BENG.*; *Salparni*, *BOM.*

Himalayas (ascending to 5,000 feet on the Chenab) to Pegu and Ceylon.

This shrub is regarded as a febrifuge and anti-catarrhal.

D. tiliacefolium, *G. Don*.

458

Vern.—*Motha*, *sambar*, *shamru*, *chamra*, *HIND.*; *Sid-kooft*, *ARAB*; *Muskh-samin*, *PERS.*

A large, deciduous shrub on the Himalaya, from the Indus to Nepal, between 3,000 and 9,000 feet.

The roots are considered carminative, tonic and diuretic, used in bilious complaints. (*Dr. Emerson.*)

D. triflorum, *DC.*

459

Vern.—*Kudaliya*, *N. W. P.*

Found everywhere in the plains, throughout India, ascending to 4,000 feet in Kumaun and 6,000 to 7,000 feet in Kashmir and on the Chenab.

The fresh leaves are applied to wounds and abscesses that do not heal well.

DIAMOND.

Diamond.

460

Diamond is much used in native medicine. U. C. Dutt says, in his *Hindu Materia Medica*, that it is purified by being enclosed within a lemon and boiled in the juice of *Sebania grandiflora*. It is described as being reduced to a powder by beating a piece of the root of the cotton plant into a paste with the juice of the betel-nut—both being not less than three years old. Within this paste the diamond is placed and roasted seven times. The diamond is then stated to be easily powdered. This powder is stated to act as a powerful alterative tonic. It is more familiarly known as a powerful mechanical poison.—See Carbon.

DICHROA.

461

Dichroa febrifuga, *Lour.*, *SAXIFRAGE*.

Vern.—*Basak*, *bansuk*, *NEPAL*; *Gebokanak*, *LEPCHA*; *Singnaamuk*, *BHUTIA*.

An evergreen shrub with beautiful sky blue berries, common in the forests of the Eastern Himalaya, from Nepal to Bhutan, altitude 4,000 feet.

The shoots and the bark of the roots are made into a decoction and used as a febrifuge by the Nepalese.

DIOSPYRUS

DICLIPTERA.

- 462 Dicliptera Roxburghiana, Nees, Acanthaceæ.**

Vern.—*Kirch, semni, lakshmana*, PEG

Found in the Salt Range, in the Siwalik tract, and in the outer Punjab Himalaya, occasionally ascending to 6,500 feet.

The plant is officinal.

DIGITALIS.

- 463 Digitalis purpurea, Linn., Scrophularineæ.**

THE FOX GLOVE.

Native of Europe, but is said to thrive well in Himalayan gardens.

The leaves are the officinal part; they are sedative, especially to the heart's action, and diuretic; useful in dropsies. The drug is sold by the druggists.

Dill. See *Peucedanum graveolens*, Benth., Umbellifereæ.

DIOSCOREA.

- 464 Dioscorea bulbifera, Linn., Dioscoreaceæ.**

YAM.

Vern.—*Zaminkand*, HIND.; *Karukarinda*, DEC.; *Malay-kaya-pendalam*, TEL.

Cultivated for its roots.

Applied to ulcers after being dried and powdered.

- 465 Dioscorea sativa, Willd.**

COMMON YAM.

Vern.—*Rādīlu*, HIND.; *Yamskollung*, TAM.

Cultivated all over India for its roots.

In the form of a powder it is used as an application for ulcers.

- 466 D. versicolor, Wall.**

Vern.—*Genthi, gajir, ganjira*, HIND.

A kind of yam found wild in the Kumaun Himalayas.

The tubers yield a farinaceous food for invalids.

DIOSPYROS.

- 467 Diospyros cordifolia, See D. montana, Roxb., Ebenaceæ.**

D. Embryopteris, Pers.

Vern.—*Gō, makur-hendi*, BENG. and HIND.; *Abnosa-hindi*, ARAB.; *Tinduka*, SANS.; *Kendu*, Ass.; *Tumbika, pani-chika*, TAM.; *Tumikh*, TEL.; *Timbore*, BOB.

A small tree or large evergreen shrub forming a dense dome of foliage, met with throughout India and Burma.

The fruit and the bark possess astringent properties. The juice of the unripe fruit makes a good application to fresh wounds. It is full of

DOLICHOS

tannin, and is therefore a useful domestic astringent, so plentiful as to be at the door of even the poorest hut. An oil extracted from the seeds is also used in native medicine.

It is used in dysentery and diarrhoea with success. The infusion of the fruit is used as a gargle in aphtha and sore-throat. A strong infusion of the fruit is anticorrosive, and used to preserve boats, nets, &c. (*Kani Lal De Bahadur.*)

D. *melanoxylon*, Roxb.

468

THE EBONY TREE.

Vern.—*Tendu, kendu, abná, HIND.; Kend, kyou, BENG.; Tumri, tummer, tumki, GOND.; Tumbi, tumbali, TAM.; Tumi, tumki, TEL.*

A moderate-sized tree, found throughout India, but not in Burma.

The bark of the tree possesses astringent properties, and is used in decoction in diarrhoea and dyspepsia as a tonic. In a dilute form it is used as an astringent lotion for the eyes.

Diospyros montana, Roxb.

469

Vern.—*Tendu, bistend, HIND.; Hireh, keindu, temru, pasendu, PB. Makar-tonai, banda, muchi tanki, TEL.*

A moderate-sized tree, found in most parts of India, except Sindh, the Northern Punjab, and Burma.

The fruit is supposed to be poisonous. The *bhistis* apply it to boils which generally appear on their hands and give them much pain and trouble.

DIPTEROCARPUS.

470

Dipterocarpus turbinatus, Gaertn. f., DIPTEROCARPACEÆ.

GURJUN or WOOD OIL.

Syn.—D. LÆVIS, Ham. (in part).

Vern.—*Gurjun, tiliyagurjun, BENG.; Kanyoung, MAGH.; Kanyin-neo, BURM.*

A lofty, evergreen tree of Eastern Bengal, Chittagong, Burma, and the Andaman Islands.

The wood-oil which the tree yields is externally applied to ulcers, ringworm, and other cutaneous diseases.

It is diuretic and slightly stimulant, and acts upon the genito-urinary mucous membranes, and is useful in gonorrhœa, even more efficacious than copaiba, (*Kani Lal De Bahadur.*)

Divi-divi. See *Cesalpinia Coraria*, Willd., LEGUMINOSÆ.

Dog-rose. See *Rosa canina*, Linn., ROSACEÆ.

DOLICHOS.

Dolichos biflorus, Linn., LEGUMINOSÆ.

471

Syn.—D. UNIFLORUS, Lam.

Vern.—*Kalatt, kälät, kult, kolt, barát, gulatti, PB.*

Found on the Himalayas to Ceylon and Burma, ascending to 3,000 feet in Sikkim; sometimes cultivated.

The seeds of the plant are used medicinally in the Punjab. •

DREGEA.

D. sinensis, Linn. See *Vigna Catjang*, Endl. LEGUMINOSE.

Dolomiza macrocephala, DC. See *Jurinea macrocephala*, Benth. COMPOSITE.

DOREMA.

472 *Dorema Ammoniacum*, Don., UMBELLIFERÆ.

EASTERN GIANT FENNEL.

Vern.—*Ushak*, PERS.; *ARAB.*, BOM.; *Kandal*, BOKHARA.

A glaucous, green plant, native of Persia. Considerable doubt exists as to the identity of the plant from which is obtained the gum-resin known as *Ammoniacum*. Most writers are inclined to refer to the plant known under the name *Dorema Ammoniacum*.

The gum which this plant yields is used as a stimulant and expectorant. It is also used medicinally in fumigation. Mahomedan writers describe the drug as discutient and attenuant.

DORONICUM.

473 *Doronicum Hookeri*, Clarke, COMPOSITE.

Vern.—*Darśnaj-akrabi*, PB.

Found on the Sikkim Himalaya; Lachen and Tungu, altitude 12,000 to 14,000 feet.

The root is an aromatic tonic, said to be used to prevent giddiness on ascending heights.

Dracocephalum Royleanum, Wall. See *Lalemantia Royleana*, Bth., LABIATE.

DRACONTIUM.

474 *Dracontium polyphyllum*, Linn., AROIDEÆ.

Vern.—*Svalā*, BOM.; *Caat karnay kaloung*, TAM.; *Adivie kunda gudda*, TEL.; *Kanana canda*, SANS.

Met with in the Malabar Hills, Bombay and the Concans.

The root is large, rugged and irregular, and supposed to possess antispasmodic virtues, and to be a remedy in asthma. It is also used in haemorrhoids. According to Thunberg, it is highly esteemed in Japan as a powerful emmenagogue, and sometimes used to procure abortion. (Ainslie.)

DREGEA.

475 *Dregea volubilis*, Benth. Gen. Plant, ASCLEPIDEÆ.

Syn.—*Hoya VIRIDIFLORA*, R. Br.; *Wight t. 586*; *ASCLEPIAS VOLUBILIS*, Linn. f.; *Roxb. Pl. Ind. II*, 36.

Vern.—*Nak-chikni*, HIND.; *Tita-kunga*, BENG.; *Harandori*, MAHR.; *Kodic-palyai*, TAM.

A twining shrub of Bengal, Assam, the Deccan Peninsula, from the Concan southward to Ceylon.

The leaves are much employed as an application to boils and abscesses. The roots and tender stalks are considered emetic and expectorant.

ECLIPTA.

DROSERA.

Drosera peltata, Sm. and D. Burmanni, Vahl., DROSERACEÆ.

THE SUN DEW.

Vern.—*Mukha-jali*, HIND.

Are found throughout India, the former on the Himalaya and Nilgiri hills, and the latter plentiful in the plains, appearing on the paddy fields in the cold season. It is everywhere seen in Chittagong Nagpur and Orissa, and common in fields around Burdwan, although not to my knowledge met with in the vicinity of Calcutta. It prefers a sandy, open soil.

It seems probable that both the above species are referred to under the vernacular name of *Mukha-jali*. The leaves of this curious and insectivorous plant, bruised and mixed with salt, are used as a blister in Kumaun.

DRYOBALANOPS.

Dryobalanops Camphora, Colebr., DIPTEROCARPEÆ.

476

BARAS OR BORNEO CAMPHOR.

Vern.—*Bhimsevi-kapur*, Bom.

A tree of Sumatra.

For medicinal properties see Camphor.

Dulcamara. See *Solanum dulcamara*, Linn., SOLANACEÆ.

ECBALLIUM.

Ecballium Elaterium, A. Rich., CUCURBITACEÆ.

478

ELATERIUM; The SQUIRTING CUCUMBER.

Syn.—*MOMORDICA ELATERIUM*, Linn.; *ECBALLIUM AGRESTE*, Reichenb.; *E. OFFICINALE*, N. & E.; *E. OFFICINARUM*, Rich (in Pharm. Ind.).Vern.—The fruit is sold in Bombay under the name *Kateri-indrayun*, *katha-ul-himar*, ARAB; *Khiyar-i-khar*, PERS.

A small, perennial plant, with fleshy tapering white root, indigenous to the Mediterranean Coast.

Elaterium is the most powerful hydragogue cathartic known, principally used in dropsical affections connected with heart disease. Used also in apoplexy and cerebral disorders, to unload the intestines and act as a derivative.

Echium, sp.? BORAGINEÆ.

The *Gao-Zaban* is, by Moodeen Shariff, referred to this genus, but as it would appear, incorrectly. See *Onosma*.

ECLIPTA.

Eclipta alba, Hassk., COMPOSITE.

479

Syn.—*E. ERECTA*, Linn.; *E. PROSTRATA*, Linn.Vern.—*Moch kand*, *bhangra*, *babri*, HIND., PB.

The plant is met with throughout India; ascending to 6,000 feet in the Himalaya and other mountains.

ELRAG-**NUS.**

The fresh plant is applied with sesamum oil in elephantiasis, and the expressed juice in affections of the liver, spleen, and dropsy. When used in large doses it acts as an emetic. It is also considered cooling.

It is anodyne and absorbent, and relieves headache when applied with a little oil. It is an excellent substitute for Taraxacum. (*Kani Lal De Bahadur.*)

EHRETIA.

- 480 Ehretia buxifolia, Roxb., BORAGINÆ.**

Vern.—*Coorwingie vayr*, TAK.; *Bapanc-bari*, TEL.; *Palo-ké-járr*, DEC.

A shrub of the Deccan Peninsula, met with in dry jungles.

The root having a sweetish and warm taste in the fresh state is used as an alterative. A decoction of the root has been found beneficial in secondary and constitutional syphilitic affections. The Mahomedan practitioners consider it an antidote to vegetable poisons. (*Ainslie.*)

- 481 Ehretia obtusifolia, Hochst.**

A shrub of Sind and Punjab.

A decoction of the fresh root is used in venereal diseases. (*Dymock.*)

ELÆAGNUS.

- 482 Elæagnus hortensis, M. Bieb., ELEAGNÆ.**

Syn.—*E. ANGUSTIFOLIA*, Linn.

Vern.—*Sanjít*, AFG.; *Sirshing*, TIBET; *Shidlik*, N. W. P.

A small tree of the Western Himalaya, Ladak, Baltistan, Afghanistan, and westward to Mediterranean regions.

Bellew says that the fruit is eaten by the poorer classes in Afghanistan; and Brandis adds that in Yarkand a spirit is distilled from it. The flowers are also reported to be medicinal.

- 483 E. latifolia, Linn.**

Syn.—*E. CONFERTA*, Roxb.

Vern.—*Ghiwain*, *míjhánla*, KUMAUN; *Jarila*, NEPAL; *Guava*, BENG. *Kamboong*, MAGH.

A straggling, evergreen shrub of the Himalaya, from Kumaun to Bhutan, Khásia hills, Eastern Bengal and South India.

The flowers are officinal in Sind and Punjab, and are considered cardiac and astringent.

The fruit is used as food by the poorer classes in Afghanistan under the name of *Sanjeet*.

- 484 E. umbellata, Thunberg.**

Vern.—*Ghiwain*, *ghain*, *kankoli*, *bammewa*, PR.

A thorny, deciduous shrub on the Himalaya, from near the Indus to Bhutan, between 3,000 and 10,000 feet.

The seeds are said to be used as a stimulant in coughs, the expressed oil in pulmonary affections, and the flowers as a cardiac and astringent.

ELÆODENDRON.**Elæodendron glaucum, Pers., CELASTRINÆ.**

485

Syn.—E. ROXBURGHII, W. & A.

Vern.—Mirandu, padrián, babra, PB.; Bakra, shawria, chauli, N.W.P.; Chauri, OUDH; Karkava, irkuli, TAM.; Nirija, bootgi, TEL.; Nerrelu, CINGH.

A tree of the Sub-Himalayan tract from the Ravi eastward, Central and South India.

- The root is a specific against snakebite, and the bark is used in native medicine and said to be a virulent poison. A decoction or cold infusion of the fresh bark of the root is applied to swellings.

Elderflowers. See *Sambucus nigra*, Linn., CAPRIFOLIACEÆ.**Elemlı.** See *Canarium communis*, Linn., BURSERACEÆ.**ELETTARIA.****Elettaria Cardamomum, Maton., SCITAMINEÆ.**

486

THE LESSER CARDAMOM.

Vern.—Chota elachi, BENG., HIND.; Kagilah-saghur, ARAB.; Kagila-he-khurd, PERS.; Ellakay, TAM., TEL.; Panlat, BURM.

Extensively cultivated in the hilly districts of South India for its fruits or cardamoms.

These are used medicinally as a cordial and stimulant.

Used as a corrective for foul breath. Finely powdered they are used as a snuff for head-ache. The cardamoms, fried and mixed with mastiche and milk, are used internally in irritation of the bladder. In nausea and vomiting they are used as a *sherbut* with pomegranate; employed as a stimulant in cholera. (Dr. Emerson.)

ELEUSINE.**Eleusine corocana, Gaertn., GRAMINEÆ.**

487

Vern.—Maruá, mandua, makra, rolka, mandal, HIND.; Chalodra, koda, PB.; Ragi, DEC.; Kayur, TAM.; Tamidalu, TEL.

Extensively cultivated in the hilly districts for its grain.

Mr. Baden-Powell mentions this plant among his drugs, but says nothing about its medicinal properties. Some natives assert that it is astringent.

Elm bark. See *Ulmus campestris*, Linn., URTICACEÆ.**EMBELIA.****Embelia Ribes, Burm., MYRSINEÆ.**

Vern.—Baberáng, wawrung, HIND.; Bebrang, SYLHET; Himalcheri, NEPAL; Vidanga, SANS.; Babrung, PB.; Vidyū-vilamgam, TAM.; Kdr-kannie, BOM.; Umbelia, CINGH.

A large climber of East and North Bengal, South India, Ceylon and Burma.

EPHEDRA.

The seeds of the plant have been described as anthelmintic, alterative and tonic. They are also recommended as a carminative, stomachic, and an anthelmintic medicine. They are also used largely in the adulteration of black pepper. They also enter into composition of several applications for ringworm and other skin diseases. Royle says that they possess aperient properties.

489/ **E. robusta, Roxb.**

Vern.—*Bayabeng*, HIND.; *Kalay bogati*, NEPAL.; *Bebrang*, OUDH; *Kopadalli*, GOK.; *Bharangeli*, KURKU; *Amti, ambat, barbatti*, BOM.; *Aipmwaynway*, BURM.

A large shrub or small tree of the Sub-Himalayan tract from the Jumna eastward to Bengal, Behar, West India, and Burma.

The fruit is said to be used to adulterate black pepper.
It is given as an anthelmintic, and internally for piles.

Emblie myrobalam. See *Phyllanthus Emblica*, Linn., EUPHORBIACEÆ.

ENHYDRA.490 / **Enhydra fluctuans, Lour.**, COMPOSITÆ.

Syn.—*E. HELONCHA*, DC.

Vern.—*Harkuch*, HIND.; *Hilamochikd*, SANS.; *Hingchd*, BENG.

Found in East Bengal, Assam and Silhet.

The leaves of this aquatic plant are regarded as laxative and useful in diseases of the skin and nervous system.

They are antibilious. (*Kani Lal De Bahadur.*)

ENICOSTEMA.491 / **Enicostema littorale, Blume**, GENTIANACEÆ.

Syn.—*CICENDIA HYSSOPIFOLIA*, W. & A.

Met with all over India from the Punjab and Gangetic plain to Ceylon; more frequent near the sea, not known in Bengal.

This is the *chota* (small) *Chiretta* of the natives. It possesses marked bitterness, and is much used in Madras as a stomachic. It is also tonic and laxative. (*Pharm. Ind.*)

ENTADA.492 **Entada scandens, Blh.**, LEGUMINOSÆ.

Vern.—*Gilla*, BENG.; *Geredi*, URYA; *Pangra*, NEPAL; *Taktockyem*, LEPCHA; *Gardal*, BOM.; *Kongnyin-nway*, BURM.

A large climber of the forests of Eastern Bengal, South India, Burma, and the Andaman Islands.

The seeds are used in pains of the loins and debility.

EPHEDRA.493 **Ephedra Gerardiana, Wall.**

Vern.—*Asmánia*, bátskár, bádekhár, chewa, khanna, PB.

It is found at places on the Sutlej and Chenab, and in the Jhelam Basin, at from 7,800 to 11,200 feet, and in Ladak to 15,000 feet.

Medicines.

[PART V

ERVUM.

Altchison remarks that some part of the plant is used medicinally in Lahoul.

Epicanta nepalensis, Moore, COLEOPTERA.

494

An insect recommended as a substitute for Cantharides.

Epsom salts. See Magnesia.

EQUISETUM.

Equisetum debile, Roxb., EQUISETACEÆ.

495

THE HORSE-TAIL.

Vern.—*Matti, skinung, bandukej, nari, trotak, biki, PB.*

Dindigal, Burma, Bengal, Sylhet, North Doab, Dehra Dún.

The plant is administered as a cooling medicine, and near Jhelam it is given for gonorrhœa.

ERAGROSTIS.

Eragrostis cynosuroides, R. & S., GRAMINEÆ.

496

Vern.—*Dabb, HIND.; Dal, dib, kusa, davolia, PB.*

A common grass, said to possess diuretic and stimulant properties.

EREMOSTACHYS.

Eremostachys vicaryi, Benth., LABIATE.

497

Vern.—*Gurgunna, khalátr, rewad chinti, PB.*

A beautiful, yellow-flowered plant, common in the Salt Range, ascending to 2,500 feet.

The seeds are given as a cooling medicine.

Ergote or Ergota. See Claviceps purpurea, Talsane, FUNGI.

ERIODENDRON.

Eriodendron anfractuosum, DC., MALVACEÆ.

THE WHITE COTTON TREE.

Vern.—*Safed simal, sensib, hatian, katan, HIND.; Shwet simal, BENG.; Ilavam, TAM.*

A tall, deciduous tree of India and Burma, throughout the hotter parts in Bengal.

The tree yields a gum, called *Hatian gond*, which is astringent and used as a remedy for bowel complaints.

ERVUM.

Ervum Lens, Linn., LEGUMINOSÆ.

498

THE LENTIL.

Vern.—*Masuri, BENG.; Masur, HIND.; Adas, ARAB.; Mirjumah, PERS.; Misurpurpur, TAM.; Misur-pappu, TEL.*

A valuable pulse, grown as a winter crop all over India.

ERYTH-
ROXYLON.

It is said to be used in the treatment of small-pox ulcers in the form of a poultice. Lentils have been highly spoken of as medicines for constipation and other affections, but in practice they have been found to be of no use.

ERYNGIUM.

500

Eryngium caeruleum, Bieb., UMBELLIFERÆ.Syn.—*E. PLANUM*, Lindl.Vern.—*Dhudhalī*, HIND.; *Poli, mittā, kandā, pahari gājār, nūrdālām*, PA.
Shakhal-mīstī, ARAB.; *Gurs-dustī*, PERS.

Found in Kashmir, altitude 5,000 to 6,000 feet.

The root is considered nervine, tonic and aphrodisiac. In Kāndahār the seeds are said to be officinal.

ERYTHRÆA.

501

Erythraea Roxburghii, G. Don., GENTIANACEÆ.Syn.—*CHIRONIA CENTAURIODÉS*, Roxb.Vern.—*Luntak*, BOM.

Found throughout India, ascending to 2,000 feet, from the Punjab and Bengal to Travancore; common in Bengal plains.

The whole plant is powerfully bitter, and may be substituted for chiretta, when the latter is not available.

ERYTHRINA.

502

Erythrina indica, Lam., LEGUMINOSÆ.

THE INDIAN CORAL TREE.

Vern.—*Pangra, panjira*, HIND.; *Palita mander*, BENG.; *Paravalada-mara*, KAN.; *Murāka*, TAM.; *Modugu*, TEL.; *Pangra*, DEC.; *Pentay-khatit*, BURM.; *Dudap*, MALAY.

A deciduous tree, cultivated throughout India and Burma; wild in Oudh, Bengal, South India and Burma.

The bark is used medicinally being antibilious and useful as a febrifuge.

It is anthelmintic and useful as a collyrium in ophthalmia. The leaves are applied externally to disperse venereal buboes and to relieve pain on the joints. (*Kani Lal De Bahadur.*)

ERYTHROXYLON.

503

Erythroxylon monogynum, Roxb., LINNÆ.Syn.—*E. INDICUM*, Bedd.; *SETHIA INDICA*, DC.Vern.—*Devadarśi*, TAM.; *Adivi geronta*, TEL.

A small tree of South India and Ceylon.

Dr. Bidde says that "during the Madras famine the leaves were largely eaten by the starving poor, and as there is nothing in them structurally likely to satisfy the pangs of hunger, it seems probable that they contain some principle like that of *E. Coccoa*."

Ether.

EUONYMUS.

504

=

505

EUCALYPTUS.**Eucalyptus Globulus, Labill., MYRTACEÆ.**Vern.—*Kurpoora maram, TAM.*

The blue gum tree of Tasmania; introduced into India, and cultivated in Madras, especially on the Nilgiris.

The leaves yield an essential oil used as medicine, and sometimes as a substitute for Cajeput oil.

E. resinifera, Sm.

506

Widely distributed throughout Australia.

The red gum obtained from this and several other species of *Eucalyptus* has been found very useful in the treatment of chronic bowel complaints, being regarded as astringent. (*Pharm. Ind.*)

EUGENIA.**Eugenia Jambolana, Lam., MYRTACEÆ.**

507

Vern.—*Jaman, jam, jámun, HIND.; Kdájám, BENG.; Chambú, GARO; Jamu, Ass.; Naval, naga, TAM.; Nasodu, nairuri, TEL.; Jamboor, BOM.; Thabyai-pyoo, BURM.*

A moderate-sized tree, found wild or in cultivation all over India from the Indus eastward, ascending to altitude 5,000 feet.

The bark is astringent and used in cases of dysentery, and the decoction as a tooth gargle. A vinegar, prepared from the juice of the unripe fruit, is an agreeable stomachic and carminative; it is also used as a diuretic. The fresh juice of the bark is given with goat's milk in the diarrhoea of children. The expressed juice of the leaves is used alone or in combination with other astringents in dysentery. (*U. C. Dutt.*)

E. Pimenta, DC.

508

De Candolle's Prodramus, Vol. III, p. 285, says:—"This plant is cultivated in India." I can find no mention of this being the case. The *Pharmacopœia Indica* says, the dried unripe berries are used similarly to *Thunbergia* in diarrhoea and piles.

EULOPHIA.**Eulophia campestris, Lindl., ORCHIDACEÆ.**

509

Vern.—*Sálib misri, PB.*

It is found in Oudh and Rohilkund, and in the Siwaliks of the Gangetic Doab.

By the natives the *salep* is chiefly esteemed as a tonic and aphrodisiac.

EUONYMUS.**Euonymus tingens, Wall., CELASTRINÆ.**

510

Vern.—*Kungtu, N. W. P.; Newar, hasári, NEPAL; Chopra, mer mahau, SIMLA.*

A small, evergreen tree of Himalaya, from the Sutlej to Nepal, between 6,500 and 10,000 feet.

UPHOR-BIA.**EUPATORIUM.****511 Eupatorium Ayapana, Vern., COMPOSITE.**

An American plant, naturalised in many parts of India, and known under its Brazilian name, *Aya-pana*. For long it held a high position as a medicinal plant, but the exaggerated ideas of its virtues have now exploded. It is a good simple stimulant, tonic and diaphoretic. In cholera it has been used to restore warmth to the body, and it is said also to be used internally and externally in the treatment of snake-bite.

512 E. cannabinum, Linn.**THE HEMP AGRIMONY.**

An exceedingly plentiful plant on the temperate Himalaya, Khásia hills and Burma, between 3,000 and 6,000 or even up to 10,000 feet in altitude. A tall, erect plant with downy leaves and terminal crowded head of dull purple flowers, inhabiting damp, watery places.

EUPHORBIA.**513 Euphorbia antiquorum, Linn., EUPHORBIACEÆ.**

Vern.—*Tidhara*, HIND.; *Nara sij*, *tekata sij*, BENG.; *Zaggume-hind*, ARAB.; *Zaquniya-hindi*, PERS.; *Shidu*, MECHI; *Shasoung-pya-thal*, BURM.

A shrub with three-angled branches, common on dry hills of Bengal and the Peninsula.

The juice which flows from the branches is used as a purgative to relieve pain in the loins. It is an acrid irritant in rheumatism and tooth-ache. When taken internally it acts as a drastic purgative. It is also employed in nervous diseases, dropsy, palsy, deafness and amaurosis. (*Baden-Powell*.) A plaster prepared from the roots and mixed with assafœtida is applied externally to the stomachs of children suffering from worms. The bark of the root is purgative, and the stem is given in decoction in gout. (*Wight; Rheede*.) "This plant is supposed to ward off lightning strokes, and is generally kept in tubs or pots on the roofs or other exposed parts of native houses." (*U. C. Dutt*.)

514 E. dracunculoides, Lam.

Vern.—*Richni*, *suddb* (the fruit), *kangi* (the plant), PB.; ARAB.

It is a common field-weed in most parts of the Punjab plains. The fruit is officinal and used to remove warts.

515 Euphorbia helioscopia, Linn.

Vern.—*Hirrus-eek*, *mahabi*, HIND.; *Ganda bitti*, *dédal*, *kulfa-doda*, *charival*, PB.

A common field-weed in spring throughout the Punjab plains and the Siwalik tract, and to 7,000 feet in the outer Himalaya.

The milky juice is applied to eruptions, and the seeds are given with roasted pepper in cholera. The juice is also used in the form of a liniment in neuralgia and rheumatism, and the root is used as an anthelmintic. (*Murray*.)

E. hypericifolia, Linn.Vern.—*Hasárdána*, PB.

A small species common in many parts of the Punjab plains and the Siwalik tract.
It is given with milk to children in colic.

E. Lathyris, Linn.Vern.—*Sudab*, PB.

Seeds are purgative and emetic. Used in dropsy and also to procure abortion.

E. neriifolia, Linn.Vern.—*Sehund, thokar, sij*, HIND.; *Mansa sij*, BENG.; *Sunki, sujri, sekunda*, SANS.; *Gangichá*, PB.; *Thor*, BOM.; *Shasoung*, BURM.

"A small tree with cylindric stem and five-angled, spirally twisted stem; cultivated near villages in most parts of India. It is considered a sacred tree by the Mechis of the Sikkim Terai and Bhutan Duars, and is consequently often found on deserted village sites." (Gamble.)

The milky juice of an undetermined species of *Euphorbia*, probably this one, is applied to incipient abscesses, and is said to be effectual in preventing suppuration. It is also considered purgative and rubefacient. The plant is sacred to Munsa, the goddess of serpents. The root, mixed with black pepper, is employed in cases of snake-bites, both internally and externally. "Every part abounds with an acrid milky juice, employed to remove warts and cutaneous eruptions, &c." (Roxb.)

Euphorbia Royleana, Boiss.Syn.—*E. PENTAGONA*, Royle.Vern.—*Shakar pitán, thar*, PB.; *Sali, chula, shén, chu, ouro*, HIMALAYAN NAMES.

A large, milky shrub of the North-West Himalaya, ascending to 6,000 feet.

The acrid, milky juice of this plant possesses cathartic and anthelmintic properties.

E. sp.

The dried roots of an undetermined *Euphorbia* are used in Kuram as a purgative. In large doses it causes vomiting, hence it is called the "vomit-weed." The fresh milk of the leaves causes blisters on the hands when collecting the root (Aitchison, *Kuram Valley Flora, in Journal Linnaean Society, XVIII, page 25.*) May this not be *E. Thomsoniana* referred to by the author in Vol. XIX, page 147?

E. Thomsoniana, Boiss.

The crushed root-stocks are employed by the natives of Kuram as detergents for washing the hair, and when boiled are given as purgatives. (Aitchison, *Kuram Valley Flora, Linnaean Journal, XXIX, page 147.*)

E. thymifolia, Burm.Vern.—*Bara dodak, hasárdána*, PB.

A common weed in parts of the Punjab plains, Sind, Kutch, Deccan, and Guzerat.

The juice of this plant is known to be a violent purgative. The dried leaves and seeds are aromatic and astringent, and used in native practice in diarrhoea and dysentery of children along with butter milk. (Murray.)

E. Tirucalli, Linn.

Vern.—*Shir thohar, sehund, HIND.; Lanka sij, BENG.; Seju, URIVY; Tirukkali, MAL., TAM.; Jomudu, kalli dremuda, mandre, TEL.; Sha-shoung-lehnyo, BURM.*

Common in Sind, Deccan, Konkan, Guzerat, and Kutch.

The juice of this plant is used as a warm remedy in rheumatism, tooth-ache and debility. The milk is said to cure affections of the spleen and to act as a purgative in colic. Externally it is a vesicatory. It is also cathartic, emetic and antisyphilitic.

EURYCOMA.**Eurycoma longifolia, Jack., SIMARUBACEÆ.**

Vern.—*Penwar pait, MAL.*

A small tree of the Malayan Peninsula and Archipelago.

The tree possesses bitter properties. A decoction of the root is a remedy in intermittent fevers, and as a febrifuge stands in the opinion of Mr. Oxley (1850) next to quinine. (*Pharm. Ind.*)

EUXOLUS.**Euxolus polygamus, Moq., AMARANTACEÆ.**

Syn.—*AMARANTUS POLYGAMUS, Linn.*

Vern.—*Chaulai, PB., BOM.*

Met with in Punjab and South India.

Considered cool and dry, acts as a diuretic and aperient, promotes digestion and cures eruptions. (*Baden-Powell.*)

EVOLVULUS.**Evolvulus alsinoides, Linn., CONVOLVULACEÆ.**

Syn.—*E. HIRSUTUS, Lam.; E. ANGUSTIFOLIUS, Roxb.*

Vern.—*Vishnugandhi, SANS.; Sankh pushpi, PB.: Shankhavalli, BOM.*

Common throughout India and Ceylon in grassy places; rare in the damp regions.

The Mahomedan physicians believe that this plant has the power to strengthen the brain and memory. It is also extensively used as a febrifuge and tonic. Ainslie says that the plant is given in bowel complaints. In the Vedic period it was believed to possess the power of promoting conception. (*Dymock.*)

EXACUM.**Exacum bicolor, Roxb., GENTIANACEÆ.**

Vern.—*Barā-chardiyatah, HIND.*

Met with in Deccan Peninsula.

The dried stalks are sold in South India under the name *country Kariyat*. The plant possesses tonic and stomachic properties, and may well be substituted for *Gentian*. (*Pharm. Ind.*)

E. pedunculatum, Linn.

Found throughout India, ascending to 3,000 feet, from Oudh and Bengal to Ceylon.

The plant is less bitter than *Chiretta*, and more than Gentian, for which it may be substituted.

Exacum tetragonum, Roxb.

THE PURPLE CHIRETTA.

Vern.—*Titakhana, HIND.; Koochuri, BENG.*

Found in North India, ascending to 5,000 feet, common from Kumaon to Central India, Bhutan, and the Khásia Mountains; also in Bombay, Salsette, Khandalla, Morung, Wurgaum and Bengal.

The plant is used as a tonic in fevers and a stomachic bitter. (*Pharm. Ind.*)

EXOGONIUM.

Exogonium Purga, Benth., CONVOLVULACEÆ.

JALAP.

Syn.—*IPOMÆA PURGA, Hayne.*

Vern.—*Shatil, ARAB.; Roshan, bikahojallafak, PERS.*

Imported into India, and experimentally cultivated on the Nilgiri-hills.

Largely used in European medical practice and sold by all chemists.

EXCÆCRIA.

Excæcaria agallocha, Willd., EUPHORBIACEÆ.

Vern.—*Gangwa, geor, uguru, geria, BENG.; Tenyan, Kayan, BURM.; Yekin, BURM., in the ANDAMANS.*

A small, evergreen tree of the coast and tidal forests of India, Burma and the Andaman Islands.

The juice which exudes from the green bark is poisonous.

E. indica, Müll. Arg.

Vern.—*Hirná, batál, BENG.; Kirri makalu, CINGH.*

A small, evergreen tree of the Sundurbans and tidal forests of Tenasserim and Ceylon.

The juice of the tree is poisonous.

E. insignis, Müll. Arg.

Syn.—*FALCONERIA INSIGNIS, Royle.*

Vern.—*Dúdla, bilodar, biloja, PB.; Khinna, HIND.; Garpa shola, ANAMALAIAS.*

A small, deciduous tree of the Sub-Himalayan tract, from the Beas eastward, ascending to 4,000 feet. Chittagong, Burma, and Western Ghâts as far north as Nasik.

The whole tree is full of an acrid milk which is said to be poisonous.

FAGONIA.

Fagonia arabica, Linn., ZYGOPHYLLEÆ.

Vern.—*Oosturgar, HIND.; Drummakoi, SIND.*

Throughout North-West India, Sindh, the Punjab, and the southern provinces of the Western Peninsula.

The leaves and twigs are supposed to possess cooling properties.*

FARSETIA.

- 535 F. Bruguieri, DC.**

Syn.—*F. CRETICA*, var. ANDERS.

Vern.—*Spalaghadi*, N. W. HIN., TRANS-INDUS; *Dhamā*, *damlyā*, *dramah*, PB., SIND.

Found in North-West India and Peshawar.

The plant is given as a tonic and febrifuge, and in the Peshawar Valley it is given to children as a prophylactic against small-pox. (F. L Stewart.)

- F. montana, Mig.** See *Axina tetracantha*, Lam., SALVADORACEÆ.

FAGRÆA.

- 536 Fagrea fragrans, Roxb., LOGANIACEÆ.**

Vern.—*Anan*, BURM.

An evergreen tree of Burma and China.

The bark of this plant is a remedy for malarious fever. Upon experiments made by Rai Kanny Lall De Bahadur, it has been found to contain strychnia. The *Pharmacopœia of India* remarks "the remedy appears worthy of further investigation."

- 537 F. racemosa, Jacq.**

Vern.—*Thit-hpaloo*, BURM.

A moderate-sized, evergreen tree of the Andaman Islands.

Major Ford says that the root-bark is used as a cure for fever

FARSETIA.

- 538 Farsetia ægyptiaca, Turr., CRUCIFERÆ.**

- 539 F. Hamiltonii, Royle.**

- 540 F. Jacquemonti, H. f. & T.**

Vern.—*Mulei*, *fárid báti*, *láthia*, PB.

Common in many parts of the arid tracts throughout the Punjab plains, from Delhi to Peshawar.

One of the above three species is officinal, and has a pleasant, pungent taste. Taken as a cooling medicine, and considered a remedy for rheumatism.

- 541 Fel.**

GALL OR BILE.

Vern.—*Safra*, ARAB.; *Zakrâh*, PERS.; *Safra*, HIND.; *Pitta*, SANS.

The bile of the buffalo, wild boar, goat, peacock, and the rohituka fish are used in medicine, single or mixed, as laxatives, and chiefly in place of water to soak powders intended to be made into pills. (U. C. Dutt.)

Gall is an absorbent and purgative, used along with antimony as a stimulant for the eye. In 1 drachm doses, mixed with 1 drachm of wax, taken internally, is said to cause abortion. Bile made into an ointment is used in inflammatory swellings (Dr. Emerson).

- Feanel fruit.** See *Foeniculum vulgare*, Gærtn., UMBELLIFERÆ.

FERULA.

FERONIA.

Feronia Elephantum, Correa, RUTACEÆ.

THE WOOD APPLE.

542

Vern.—*Bilin, kathbdli, HIND.; Kath-bil, BENG.; Kabis, ARAB., PERS.; Kapittha, SANS.; Vallanga, vola, TAM.; Velaga, okaka, TEL.; Kowit, BOM.; Kavatha, SINH.; Hman, BURM.*

A large tree of the Sub-Himalayan forests, from the Ravi eastward, Bengal, South India, Chanda district in the Central Provinces.

The fruit is aromatic and used as a stomachic stimulant in diseases of children. The gum, resembling gum-arabic, acts as a demulcent in bowel affections. "The unripe fruit, is described as astringent, and is used in combination with *bila* and other medicines in diarrhoea and dysentery. The ripe fruit is said to be useful in hiccup and affections of the throat. The leaves are aromatic and carminative." (U. C. Dutt.) In Mahomedan medical works the leaves are described as astringent, the fruit as "cold and dry, refreshing, astringent, cardiacal, and tonic, a useful remedy in salivation and sore-throat, strengthening the gums and acting as an astringent. Sherbet made from the fruit increases the appetite, and has alexipharmac properties. The pulp, applied externally, is a remedy for the bites of venomous insects; if not obtainable, the powdered rind may be used." (Dymock.)

Is sometimes used to adulterate Bael fruit.

Ferrum.

543

IRON.

Vern.—*Hadid, ARAB.; Ahan, PERS.; Lohd, HIND.; Lohd, Lahd, BENG.; Inumu, TEL.*

"Three varieties of iron are used in Hindu medicine, namely, *Kénta lauhā* or cast-iron, *Mandura*, or iron rust, and *Sanhaséra* or salts of iron, produced by iron being kept in contact with vegetable acids.

"Iron increases strength, vigour and longevity, cures all sorts of diseases, and is the best of tonics. When gold and silver are not available, iron is substituted for them. It is used in painful dyspepsia, chronic fever, phthisis, anasarca, piles, enlarged spleen and liver, jaundice, urinary diseases, diseases of the nervous system and skin diseases." (U. C. Dutt.)

FERULA.

Ferula aliacea, Boiss., UMBELLIFERÆ.

544

Syn.—F. ? PERSICA, Willd.

Vern.—*Hing, BOM. and HIND.; Kyam, perunggyam, TAM.; Hingy, SANS.; Anjidaká, KASHMIR.* The names of this plant are used also for any of the following Asafetida-yielding species.

Dymock, in his *Mat. Med. of Western India*, reports that this plant supplies the Asafetida which is most used by the natives of India, and in which a large trade is done in Bombay. It is a semi-liquid gum, contained in skins mixed with impurities and certain portions of the plant.

The thick, fleshy roots of the Asafetida-yielding plants are cut or scratched when a milky juice exudes. This, hardening, forms the fetidly-scented gum-resin. By Eastern doctors this has, from the remotest times, been held in great esteem, and was once regarded as worth its weight in silver. In Europe its use as a medicine has of late years greatly diminished. In Hindu medical works it is directed to be fried before

it is used. It is highly esteemed as a carminative and condiment, also as an antispasmodic. If taken daily it can prevent attacks of malarious fever. The fruit is considered to be stimulant. (Dy whole.)

545

Ferula galbaniflua, Boiss.

GALBANUM, which see.

VERN.—*Tawashir, khassuch, gaochir, biross, PERS.*

The names *barsad, huineh, ARAB.*, and *tireja* or *ganda-biroza, HIND.* are sometimes applied to this gum, but more frequently to the gum of *Cedrus Deodara*.

The *Tawashir* is a yellow or greenish fluid, generally mixed with stems, flowers, and fruits of the plant. Mahomedan writers describe it as a fetid gum-resin, and say that it is used medicinally as an astringent, detergent, antispasmodic and expectorant; prescribed in paralytic affections, hysteria and chronic bronchitis. (Dy whole.)

546

R. Jaeschkiana, Vatke.

The *Flora of British India* remarks on this species: "Regel Schmalz thinks that this plant probably produces the Asafetida of commerce; this may be so, as it is an abundant species in Kashmir and very abundantly supplied with oil; but it is not the Asafetida of Linnæus." It is probable that the gum-resin referred to *F. Narthex* in India may be largely the produce of this species.

Yields a gum-resin which, Atchison says, is applied to wounds and bruises by the inhabitants of Kuram valley.

547

F. Narthex, Boiss.

THE ASAFETIDA PLANT.

SYN.—*NARTHEX ASAFETIDA; F. ASAFETIDA, Linn.*VERN.—*Hing, BENG., HIND.; Hiltit, ARAB.; Angosah, PERS.; Hingu, SANS.; Angkuach-i-lari, PERS.; Perungayam, TAM.; Ingava, TEL.; Hingra, BOM.*

The Asafetida plant is a native of Kashmir, Persia and Afghanistan.

The gum-resin is a powerful antispasmodic, expectorant, and anthelmintic, a nervine stimulant and a feeble laxative. It is useful in hysteria and hysterical affections, also in spasmodic affections such as asthma, hooping cough, angina pectoris, flatulent colic, &c. It produces remarkable effects in the advanced stages of pneumonia and bronchitis in children. (*Pharm. Ind.*) The leaves possess sudorific and carminative properties.

Compare the remarks under this genus with those given in Part I, GUMS AND RESINS. The Gum-resin is used as a condiment by natives. It is very efficacious in flatulent colic. In ringworm it is applied as a paste.

FICUS.

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Ficus bengalensis, Linn., Urticaceæ.

THE BANYAN TREE,

SYN.—*F. INDICA, Roxb.*VERN.—*Bor, bor, ber, bargat, HIND.; Bur, bnt, BENG.; Bal, PERS.; Bor, URIVIA; Borax, NEPAL; Kangji, LERCHA; Banket, GARO; Bor, ASS.; Alia, TAM.; Mori, pedi-mori, TEL.; Ahlada, KAN.; War, wada, MAR.; Pyse-nyoung, BURM.*

One of the most characteristic of Indian trees, each often forming a forest in itself from its habit of sending down roots from its branches.

The milky juice is externally applied to pains and bruises. The seeds of the fruit are considered as cooling and tonic. The juice is also a remedy for tooth-ache, and also considered specific for cracked heels, excoriations, lumbago, and croup. The infusion of the bark is given as a tonic. The heated leaves are applied as a poultice to abscesses, &c.

Ficus Carica, Linn.

THE COMMON FIG.

Vern.—*Anjir*, HIND., BENG., PERS.; *Ten*, ARAB.; *Kimri*, *fagu*, *fagari*, *fagari*, PB.; *Anjira*, BOM.

Cultivated in the North-Western Provinces, the Punjab, and the Western Himalayas.

The dried fruit is used as a demulcent, emollient, nutritive and a laxative medicine. It is rarely employed medicinally. Persons suffering from habitual constipation find it useful as an article of diet. The fruit is also used in the form of a poultice to effect suppuration.

The pulp of the fig, mixed with vinegar and sugar, is very useful in bronchitic affections, principally in children. (Dr. Emerson.)

F. Cunia, Buch.

Vern.—*Khenan*, *khurkher*, *ghui*, HIND.; *Dumbur*, BENG.; *Kunia*, KU-MAUN; *Kanhya*, NEPAL; *Perina teregam*, MAL.; *Ye-kha-ong*, BURM.

A moderate-sized tree of the Sub-Himalayan tract from the Chenab eastward, ascending to 4,000 feet, Bengal, Burma, mountains on the east side of the Peninsula.

The fruit is given in aphthous complaints. A bath made from the fruit and bark is a cure for leprosy. (Rheede.)

F. excelsa, Vahl.

Vern.—*Atti meer alon*, MAL.

Introduced from the Moluccas into South India.

The decoction of the root acts as a powerful aperient.

F. glomerata, Roxb.

Vern.—*Gilar*, *paroa*, *umar*, HIND.; *Jagya dumar*, BENG.; *Dumri*, NEPAL; *Tchongtay*, LEPCHA; *Kathgular*, *krumbal*, *dadhuri*, PB.; *Atti*, TAM.; *Moydi*, TEL.; *Ye-tha-pan*, BURM.

A large tree of the Salt Range, Sub-Himalayan Tract, Bengal, Central and South India, and Burma.

The leaves, bark and fruit are used in native medicine. The bark is used as an astringent and a wash for wounds. The milky juice is given in piles and diarrhoea, and in combination with sesamum oil in cancer. The root is useful in dysentery. The figs are considered astringent, stomachic and carminative, and are given in menorrhagia and haemoptysis. The fresh juice of the ripe fruit is used as an adjunct to a metallic preparation which is given in diabetes and other urinary diseases.

F. heterophylla, Linn.

Syn.—*F. RUBESCENS*, Vahl.

Vern.—*Gaori-shiora*, BENG.; *Valli-teragam*, MAL.; *Buroni*, TEL.

Common along the banks of larger rivers and choungs all over Burma from Chittagong and Ava down to Upper Tenasserim.

The juice of the root of this shrub is internally administered in colic pains, and the juice of the leaves mixed with milk in dysentery. The bark of the root, which is very bitter, pulverised and mixed with

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FISH LIVER

OIL.

Coriander seed, is considered a good remedy in coughs and asthma, and similar affections of the chest. (*Rheede.*)

Ficus hispida, *Linn. f.*

Syn.—F. OPPOSITIFOLIA, Roxb.; F. DEMONA, Konig.

Vern.—*Daduri, degar*, PB.; *Kagsha, gobla, totmila*, HIND.; *Tine-barri, Arab.*; *Anjir-dashki*, PERS.; *Khoskadu-mar*, ASS.; *Boda-maewa*, TEL.; *Kadot*, BURM.

A moderate-sized tree of the outer Himalaya from the Chenab eastward, ascending to 3,500 feet, Bengal, Central and South India, Burma, and the Andaman Islands.

The fruit, seeds and bark are possessed of emetic properties. The emetic action is generally followed by more or less purging.

F. polycarpa, Roxb.

Vern.—*Chhoti-jungli-anjir*, DEC.; *Chiriya-pé-atti*, TAM.; *Chinna-verri-atti-pandu*, TEL.; *Cheriya-kai-tatti*, MAL.

A native of Moluccas, Penang and Singapore.

In medicinal properties, this resembles the preceding species.

F. religiosa, *Linn.*

THE PIPAL TREE.

Vern.—*Pipal*, HIND.; *Ashathwa*, BENG.; *Arasa*, TAM.; *Nyoungbandi*, BURM.

A large, elegant, and sacred tree, with ovate, much acuminate leaves, which rustle like the aspen or trembling poplar. Found all over India in cultivation, especially near temples and along the roads.

The bark is astringent, used in gonorrhœa. It has also maturative properties. The fruit is laxative and helps digestion. The seeds are said to be cooling and alterative. The leaves and young shoots are used as a purgative, and an infusion of the bark is given internally in scabies. (*Ainstie*; *Wight.*)

A paste of the powdered bark is used as an absorbent in inflammatory swellings. (*Dr. Emerson.*)

F. retusa, *Linn.*

Syn.—F. NITIDA, Thunb.; F. BENJAMINA, Willd.

Vern.—*Kamrup, sir*, BENG.; *Jamu*, NEPAL; *Sitnyok*, LEPCHA; *Yerra juvi*, TEL.; *Pildla*, KAN.; *Nyoungpop, nyounghabyeh*, BURM.

A large, evergreen tree of Kumaun, Bengal, South India, Burma and the Andaman Islands.

The bark of the root, the root itself and the leaves boiled in oil form good applications for wounds and bruises. (*Rheede.*)

Filix-mas. See *Nephrodium Filix-mas*, *Richard.*, *FELICES.*

Fir. See *Abies* and *Pinus*, *CONIFERE.*

Fish liver oil. See :—

Acipenser huso, *Linn.*

Cyprinus commersonii, *Cuv. & Val.*

Gadus morrhua, *Linn.*

Carcharhinus.

FLACOURTIA.

F. Flacourtia Cataphracta, Roxb., BIXINEX.

558

Vern.—*Talis-patri*, HIND.; *Paniala*, BENG.; *Zarnab*, ARAB.; *Talis-patar*, PERS.; *Talis-patri*, TAM., TEL.; *Jan-gama*, *timbath*, BOM.; *Nayewal*, BURM.

A tree of Assam, Bengal, Burma, Bombay, and Western Ghâts.

The leaves and young shoots taste like rhubarb, and are supposed to possess astringent and stomachic properties, and are prescribed in diarrhoea, weakness and consumption. An infusion of the bark is prescribed in hoarseness.

Compare with *Abies Webbiana*.

F. Ramontchi, L'Herit., var. sapida.

559

Vern.—*Kundayee*, *bunj*, *bowchee*, HIND., DEC.; *Kikai*, *hangâ*, *kukoa*, *handei*, PA.; *Bâvache*, SIND.

A large shrub, which is found along the lower hills, sometimes to 3,500 feet, in the Salt Range, on the skirts of the Sulaiman Range and the Western Ghâts.

Native inoculators in the Punjab use the thorns for breaking the pustule of the small-pox on the 9th or the 10th day. After child-birth among natives in the Deccan the seeds are ground to a powder with turmeric and rubbed all over the body to prevent rheumatic pains from exposure to damp winds.

F. sepiaria, Roxb.

560

Vern.—*Kondai*, HIND.; *Sherawane*, *sargal*, *dajkar*, *jidkar*, *khatti*, *kingaro*, PA.; *Atâna*, BOM.

A small shrub, found in dry jungles throughout Bengal, the Western Peninsula, and Ceylon. It occurs about Delhi, in the Salt Range, and on the skirts of the Sulaiman Range.

This tree yields an antidote to snake-bite from an infusion of the leaves and roots. The bark triturated in sesamum oil is used as a liniment in rheumatism. (*Wight*: *Ainslie*; *Rheede*.)

Flax, Common. See Linum usitatissimum, Linn., LINEX.

FLEMINGIA.

Flemingia congesta, Roxb., LEGUMINOSÆ.

561

Vern.—*Bara-salpan* (in Roxburgh), *bhalai* (in Gamble), BENG., HIND.; *Batwasi*, NEPAL; *Nipitmuk*, LEPCHA; *Dowdowla*, BOM. For the variety *Nana* the vernacular names of *Sapta*, *casund*, HIND., are given.

A woody shrub, met with everywhere throughout the thickets and forests of the warmer parts of India. It is remarkable that, while this is one of the commonest plants of India, its medicinal properties are apparently quite unknown to the native doctors.

It yields the valuable African medicine known in Arabic as *Wards*. Compare with the account given under *Mallotus philippinensis*.

Flour. See Oryza sativa, Linn., and Triticum Vulgare, Villars., GRAMINEÆ.

FENICULUM.

Feniculum vulgare, Gaertn., UMBELLIFERÆ.

Syn.—*F. PANNOSTIUM*, DC.

Vern.—*Bari sainj*, *sainj*, HIND.; *Mauri*, BENG.; *Sohkire*, TEL.;
Wariarse, GUZ.; *Pedda-jila-kurra*, TEL.; *Bari-shopka*, BOM.

Cultivated for the seeds.

They are used medicinally as stimulant, aromatic, and carminative. The root is regarded as purgative, and the leaves diuretic.

Foxglove Purple. See *Digitatis purpurea*, Linn., SCROPHULARIACEÆ.

Franceouria crispa. Cass. See *Pulicaria crispa*, Benth., COMPOSITÆ.

Frankincense. See *Boswellia serrata*, Roxb., and *Pinus foeda*, Linn.

FRAXINUS.

563 Fraxinus floribunda, Wall., OLEACEÆ.

Vern.—*Banerish*, ARG.; *Sim, bannu, shun*, PB.; *Angan, angu*, N. W. P.;
Kangu, NEPAL.

A large, deciduous tree on the Himalaya, from the Indus to Sikkim, between 5,000 and 8,500 feet.

A concrete, saccharine exudation (manna) is obtained by incision from the stem, and is a substitute for the officinal manna.

564 F. Ormus, Linn.

FLOWERING ASH.

Syn.—*ORNUS EUROPEA*, Pers.

Vern.—*Shir-khist*, PERS., HIND., DEC.; *Mann, shir-khist*, ARAB.; *Mond*, TAM., TEL.; *Manna*, MAL.

"The saccharine exudation obtained principally from *Fraxinus ormus*, Linn., is a gentle laxative, widely employed." (Spons' Encycl.) It has a sweet taste, and its action being mild it is suitable for children.

565 F. rotundifolia.

ROUND-LEAVED ASH.

Natives of the mountains of South Europe and Asia Minor, and extending in the Mediterranean region westward to Corsica and Eastern Spain.

The saccharine exudation from the stem obtained by incisions constitutes the officinal Manna. It is a mild laxative, especially suitable for children and delicate persons.

566 F. sp.

Vern.—*Siyâchob, shir khist*, PB.

This undetermined species is found in the mountains to the north of Kâbul.

The manna known under the name of *shir khist* is imported from Afghanistan, and is used as a laxative.

French wine (Brandy). See *Spiritus Vini Gallici*.

Pulwa-Butter. See *Bassia butyracea*, Roxb., SAPOTACEÆ.

FUMARIA.

Fumaria parviflora, Lamk., FUMARIACEÆ.

Vern.—*Pitpapara*, HIND.; DEC.; *Ban-sulha*, BENG.; *Kulhi-ni-malli*, ARAB.; *Shatra*, PERA., SIND.; *Phywa*, BUR.

Found in rice-fields during the cold season; apparently an introduced plant.

The dried plant is regarded as efficacious in low fever, and is also used as an anthelmintic, diuretic, diaphoretic, and aperient, and to purify the blood in skin diseases. (*Baden-Powell.*)

Along with black pepper it is used in the treatment of ague. (*Royal.*) Mahomedan writers describe the plant as diuretic and alterative, aperient and expectorant. (*Dyrock.*)

Gadus Morrhua, Linn., PISCES.

568

COMMON COD, from which Cod Liver or Morrhua oil is obtained.

Abundant on the coasts of Norway, France, Britain, and Ireland, and especially on the coasts of Newfoundland.

The oil extracted from the liver in its fresh state is imported into India for medicinal purposes. It is a valuable alterative and nutritive, useful in scrofulous and tubercular affections. It is especially beneficial in phthisis, rachitis, tabes mesenterica, acute and chronic hydrocephalus and ophthalmia. It is also useful in neuralgia and sciatica, obstinate skin diseases, chronic rheumatism, diabetes, epilepsy, chorea and dyspepsia. (*Pharm. Ind.*)

Galangal. See *Alpinia Galanga*, Swz., SCITAMINÆ.

Galbanum.

569

A gum-resin, obtained probably from two species of *Ferula*, viz., *F. galbanifera* and *F. rubricaulis*, which see.

It is administered as a stimulating expectorant, and is also used in plasters.

Galena.

570

Galls are growths or vegetable excretions formed by certain plants around a parasitic insect. See *Quercus infectoria* Oliver, and also Galls in the LIST OF DYES, TANS AND MORDANTS.

GALIPEA.

Galipea Cusparia, St. Hil., RUTACEÆ.

571

CUSPARIA or ANGUSTURA BARK.

Native of the woods of tropical South America. The bark is imported into India.

The bark is a stimulant, aromatic tonic, febrifuge and antiperiodic. It has been successfully employed in atonic dyspepsia, chronic diarrhoea, and dysentery, and also in the treatment of debility caused by acute diseases. It has also met with success in the treatment of low malignant fevers.

Gallic acid.

572

Gamboge. See under *Garcinia*.

Gao-zaban. See *Onosma*.

GARCINIA.

- 573** *Garcinia indica*, Chois., GUTTIFERA.

Syn.—*G. PURPUREA*, Roxb.; *Pharm. Ind. gr.*

Vern.—*Brindali*, GOA; *Amsool, Kokum*, BOM.

The tree is common on the West Coast between Damaun and Goa; it grows wild upon the hills of the Konkan, but it is often to be seen in gardens close to the sea.

The fruit has an agreeable, acid flavour, and a syrup is made from it; the seeds furnish a concrete oil called *Kokum* in Bombay. Kokum butter first attracted the notice of the Europeans about 1830 as a remedy for excoriations and chaps of the skin; in order to apply it, a piece is partially melted and rubbed upon the affected part. The bark is astringent. (*Dymock*.)

- 574** *G. Mangostana*, Linn.

THE MANGOSTEEN.

Vern.—*Mengkhop*, BURM.

The Mangosteen tree is cultivated in British Burma (South Tenasserim) for its fruit, which is pronounced the finest of all the known fruits.

The rind is used as an astringent medicine for diarrhoea and dysentery. It has been found very useful in the chronic diarrhoea of children.

- 575** *G. Morella*, Desrousse.

GAMBOGE.

Syn.—*HEBRADENDRON CAMBOGOIDES*, Graham.; *G. PICTORIA*, Roxb.

Vern.—*Rewand-chini*, HIND.; *Mukki*, TAM.; *Sanatosi*, BURM.

An evergreen tree, found in the Khásia hills, East Bengal, and West Coast of India.

Medicinally, the gum *Gamboge* is used as a warm purgative, and considered a valuable hydragogue cathartic. It also possesses anthelmintic properties. It is a valuable medicine for dropsical affections, amenorrhœa, obstinate constipation, and as a vermifuge.

GARDENIA.

- 576** *Gardenia campanulata*, Roxb., RUBIACEAE.

Vern.—*Hsay-than-paya*, BURM.

Met with at the foot of the Sikkim Himalaya, in Assam, Silhet and Chittagong, Behar, at the summit of Pareshnath, and Pegu.

The root is used as a cathartic and anthelmintic.

- 577** *G. gummifera*, Linn. f.

Vern.—*Dekamali*, *hamari*, HIND.; *Chitamatta*, *chitnityal*, *gaggarn*, TEL.; *Chitta*, *kambia*, KAN.; *Dikemdi*, BOM.

A large shrub of Central and South India.

The gum obtained from this plant is used internally in dyspepsia accompanied by flatulence. In veterinary medicine, it is employed to keep off flies from sores. (*Dymock*.)

Gardenia lucida, Roxb.

Syn.—*G. RESINIFERA*, Roth; *Kura*, *Forest Fl.* II, 42.

Vern.—*Dikamali*, HIND.; *GUZ.*; *Konda-manga*, *tetta-manga*, C. P.; *Karinga*, *tolla-manga*, TEL.; *Kumbi*, TAM.

A small, deciduous tree of Central and South India, Chittagong.

The bark of this plant yields a gum, which is used in the treatment of cutaneous diseases.

Gelatine. See *Isinglass*.**Gendarussa vulgaris, Nees., ACANTHACEÆ.**

Syn.—*JUSTICIA GENDARUSSA*, Linn.

Vern.—*Jagat-madan*, BENG.; *Nila-nirgandi*, SANS.; *Tee*, *kala-adusa* BOM.; *Kalishumbal*, DEC.; *Nulla vavilee*, TEL.; *Ganda-rusa*, MAL. *Bawa-nek*, BURM.

An evergreen, dense shrub, 2 to 4 feet high; found in the tropical forests of Martaban and Tenasserim; also in Ava and the Andamans. Dr. Dymock says it is a well-known edging for flower beds, but I have never known it to be used medicinaly. Europeans sometimes call it "box."

The leaves and tender shoots when rubbed emit a strong but not unpleasant odour; used in decoction in chronic rheumatism. (*Ainslie*) The Malays employ the plant as a febrifuge. In Java it is considered to have emetic properties. (*Pharm. Ind.*) Dr. Dymock, in his *Materia Medica*, says that the medicinal properties attributed to this plant by Ainslie and in the *Indian Pharmacopœia* do not correspond with those possessed by the plant, and conjectures that it has been confounded with some species of *Vitex*.

Geniosporum prostratum, Benth., LABIATE.

Vern.—*Nasel-nagai*, TAM.

Regarded as febrifuge at Pondicherry.

GENTIANA.**Gentiana decumbens, Linn. f., GENTIANACEÆ.**

Vern. ?

Baltisthan and West Tibet, altitude 11,000 to 15,000 feet, eastward to Lahoul, common on the Karakorum.

A tincture prepared of this plant has been used as a stomachic by the Lahoul Missionaries. (*Stewart*.)

G. Kurroo, Royle.**HIMALAYAN GENTIAN.**

Vern.—*Kari*, *kutki*, BENG., HIND.; *Nilkant*, *Kamalpuk*, *nilakil*, PB.; *Phdshnrooda*, BOM.

Common in Kashmir and North-West Himalaya, altitude 5,000 to 11,000 feet.

The root is medicinally used as a bitter tonic, and as a substitute for the true Gentian. On the hills it is viewed as a febrifuge, and is largely exported to the plains along with *Picrorhiza Kurrooa*, Royle, as the officinal *karrí* or *kutku*, of which Stewart says 36 maunds were, in 1867, exposed for sale at Rampur brought from Kullu. Davies' *Trade Report* gives 20 maunds as annually exported from Peshawar to Kabul. Atkinson says that five tons are annually exported from the hills to the plains. Recent information as to the extent of this trade would be most acceptable.

583 *Gentiana lutea*, Linn.

* COMMON EUROPEAN YELLOW GENTIAN.

Native of the alpine and sub-alpine regions of South Europe. The dried root of the plant is imported into India.

"Gentian is a pine or simple bitter, and hence acts as a stomachic tonic by giving tone to the stomach and improving appetite." It is a valuable remedy in debility, in convalescence after exhausting diseases, and in some forms of dyspepsia. It was formerly highly valued in the treatment of intermittents. (Bentley and Trimen: *Pharm. Ind.*)

584 *G. tenella*, Fries.

Vern.—*Tita*, PB.

Kashmir and Western Himalaya, altitude 10,000 to 14,000 feet; common.

Aitchison says that in Lahoul a decoction of the leaves and stems of this and other species is given in fevers.

GERANIUM.

585 *Geranium nepalense*, Sweet., GERANIACEÆ.

Vern.—*Rowl*, *bhanda*, and is sold in the bazaar under the name of *Rattanjot*.

A herbaceous, prostrate plant, common all along the Himalaya, altitude 5,000 to 9,000 feet to the Khásia hills, Ceylon and the mountains of South India.

It is said to be used medicinally in the Punjab. The roots are sold as an adulterant or substitute for the *Ratanjot*. See *Oncosma echinoides*.

586 *G. ocellatum*, Camb.

Vern.—*Bhänd*, HIND.

A small, straggling plant, met with on the hills from the Punjab to Nepal, and on the summit of Pareshnath in Chhattis Nagpur.

The plant possesses diuretic and astringent properties.

587 *G. Wallichianum*, Sweet.

Aitchison says the root of this plant was brought to him in Kuram as a valuable medicine known as *Mum-i-ran* (*Kuram Valley Flora, Journal Linnaean Soc., XVIII.*, page 26.)

GISEKIA.

Gisekia pharnacioides, Linn., FICOIDÆ.

Syn.—*Gisekia* is, by the *Pharmacopœia*, referred to Phytolaccaceæ.

This was the opinion of the older writers, but the *Genera Plantarum* has reduced it to Ficoidæ.

Found in the Punjab, Sindh, Deccan, and Ceylon.

The plant has been found to act as a powerful anthelmintic in cases of tænia. The discoverer, Capt. W. H. Lowther (*Journ. Agric. Hort. Society of India, 1857*) directs that the fresh plant, including the leaves, stalks and capsules be administered in doses of about an ounce ground into a powder and given in the form of a draught with water. The dose is recommended to be repeated three times at intervals of four days. (*Pharm. Ind.*)

Ginger. See *Zingiber officinale*, *Roxb.*

Glinus lotoides, *Linn.*, also **Pharnaceum pentagonum**, *Roxb.*
See *Mollugo hirta*, *Thunb.* FICOIDÆ.

GLORIOSA.

Gloriosa superba, *Linn.*, LILIACEÆ.

589

Vern.—*Karidri*, HIND; *Lengalikd, agnisikhd*, SANS.; *Bieha languli*, BENG.
A native of the forests of India; appears during the rainy season in Bengal.

The root is said to be a violent poison, but is applied in the form of a paste, to navel, supra-pubic region and vagina, with the object of promoting labour pains.

Gluten of wheat. See *Triticum vulgare*.

Glycerine.

590

A sweet principle obtained from fixed oils and fats. It is a valuable emollient and a ready solvent of morphia, iodine, &c.; useful in some forms of deafness.

GLYCINE.

Glycyne labialis, *Linn.* See *Tetramerus labialis*, *Spreng.*, LEGUMINOSÆ.

G. Soja, *Sieb.*, LEGUMINOSÆ.

591

THE SOY BEAN.

Syn.—*DOLICHOS Soja*, *Linn.*; *SOJA HISPIDA*.

Vern.—*Gari-kulay*, BENG.; *Bhat, bhatwan*, HIND.

A pulse (densely clothed with fine, ferruginous hairs), sub-erect. Tropical regions and outer Himalaya, from Kumaun to Sikkim, the Khásia and the Naga hills to Upper Burma. Dr. Stewart mentions a field of *Bhat* having been observed in Bissahir in the Punjab, altitude 6,000 feet.

It is chiefly met with in a state of cultivation. Dr. Roxburgh first saw the plant from seed received from the Moluccas in 1798.

The seed or bean has attained almost a European name from its being prepared into the sauce known in India as "Soy." The seed is largely eaten by the Chinese, and from it a sort of cheese is prepared. It is also largely consumed in the manufacture of an edible oil. The cake, after the extraction of the oil, is used for cattle food or as a rich manure.

GLYCIRHIZA.

Glycyrrhiza glabra, *Linn.*, LEGUMINOSÆ.

592

LIQUORICE.

Vern.—*Mulhatti, jethi-madh*, HIND.; *Jashti madhu*, BENG.; *Madhuwa, yashti madhu*, SANS.

Native of South Europe, Asia Minor, Armenia, Siberia, Persia, Turkistan and Afghanistan.

Largely imported into India, the root being used in medicine and in calico-printing. It has been used in native medicine from remote times.

It is much used to flavour medical decoctions, oils, &c. It is demulcent, emollient and cooling, and is a useful adjunct to other cough medicines. It also enters into the composition of many external cooling applications.

GMELINA.

593 *Gmelina arborea*, Roxb., VERBENACEÆ.

Vern.—Kámhár, gámhár, kákhdámbari, HIND., PB.; Gámdr, gámbar, BENG.; Gambari, NEPAL; Gomari, ASS.; Numbor, LEPCHA; Bolkokab, GARO; Gumadi, cummi, TAK.; Gámár-tek, peddá-gomrú, tagumáda, TEL.; Sheraney, kuli, KAN.; Kurse, GOND; At-demmata, CINGH.; Yanney, BURM.

A moderate-sized tree occurring wild in the eastern part of the Punjab Siwalik, on the Sub-Himalayan tract from the Chenab eastward and throughout India, Burma and the Andaman Islands, and occasionally planted in the plains.

The fruit is officinal in the Punjab. The root is bitter, tonic, stomachic and laxative, given in cough, rheumatism, fever and indigestion, and is said to have anthelmintic properties.

594 *G. asiatica*, Linn.

Vern.—Badhára, HIND.; Gamudu, TEL.

A large, much-branching shrub of the forests of South India, Burma and Ceylon.

Used for rheumatism, pains in the loins, and syphilitic diseases. It was known to the Portuguese under the name *Rais Madre de Deos*, and regarded by the Hindu doctors as a demulcent and alterative.

595 *G. parvifolia*, Roxb.

Vern.—Nilak-kumish, TAM.; Challa-gummudu, TEL.; Nilak-kumash, MAL.

"The leaves and young shoots of this shrub abound with a thick, viscid mucilage, which is imparted readily to cold water, which, when thus impregnated, is employed by the natives in the treatment of gonorrhœa to allay ardour urinæ." (*Pharm. Ind.*)

GNAPHALIUM.

596 *Gnaphalium luteo-album*, Linn., COMPOSITE.

Vern.—Bdl raksha, PB.

A small, erect, white or yellow annual, common throughout the temperate Himalaya from Kashmir to Burma from 500 to 1,000 feet in altitude.

The leaves are said to be officinal in the bazars of the Punjab.

GOLD.

597 Gold.

This metal is first beaten into leaf free from any amalgam. It is then heated and rubbed with mercury some 13 or 14 times, when it is said to lose its metallic character, and becomes reduced to a reddish powder.

In this condition it is prescribed, and it is considered a valuable tonic and alterative, improving the memory and intellect. It is by the kabirajas prescribed in fever, consumption, insanity, impotence and other nervous diseases. Dose one to two grains. (*U. C. Dutt.*)

GOSSYPIUM.

Gossypium arboreum, L., MALVACEÆ.

G. barbadense, Linn.

G. herbaceum, L.

THE INDIAN COTTON.

Vern.—*Rai, kufas, HIND.; Tuld, BENG.; Karpas, SANS.; Parotti, TAM.; Pratti, TEL.; Wa, BURM.*

Extensively cultivated on account of its fibre.

The cotton-wool is applied to burns; the seeds are said to increase the secretion of milk, and are also said to be useful in epilepsy and as an antidote to snake-poison. The root is diuretic, emenagogue and demulcent, and the leaves in decoction are tonic and said to be used in fever and diarrhoea. (Atkinson.)

Gun cotton is a preparation of cotton which is steeped in sulphuric and nitric acid, washed in water several times, and then dried in a water bath. This substance leaves no ash when exploded by heat. Collodion is a preparation of gun cotton with ether and rectified spirit. It is extensively used as an application to wounds, ulcers, skin diseases, &c.

GRACILARIA.

Gracilaria confervoides, Greville, ALGÆ.

G. lichenoides, Greville.

CEYLON MOSS ; AGAR-AGAR.

A sea-weed found on the coasts of the Indian Ocean, especially at Ceylon and along the Burmese coast to Siam, the Malay Archipelago, including Java and Australia.

It consists of yellowish-white or purple filaments from one to several inches in length, the finest being not much thicker than sewing thread. The filaments are rough, thin, round, much-branched, and covered with pointed tubercles, yellow and semi-transparent.

In its medicinal properties it resembles Currageen, being emollient, demulcent and nutritive, and in decoction it constitutes a light, readily digestible food for invalids and children. The decoction is officinal in the *Indian Pharmacopœia*.

It is largely used in China to make jellies and sweetmeats, and as a varnish, &c., and seems likely to come into use to a large extent as a substitute for isinglass. It is imported occasionally into England and used as a jelly for dressing silk.

Grains of Paradise. See *Cardamomus (Amomum subulatum and Ellettaria Cardamomum)*.

GRANGEA.

Grangea maderaspatana, Poir., COMPOSITÆ.

Syn.—*ARTEMISIA MADERASPATANA, Roxb.*

Vern.—*Mustard, HIND.; Namuti, BENG.; Afsanteen, ARAB.; Baranjaisif kowki, PERS.; Mashipattiri, TAM.; Dovana, KAN.; Nelampala, MAL.*

The leaves are regarded as a valuable stomachic and to possess deobstruent and antispasmodic properties, and are prescribed in infusion

GHAN.

598

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GURJUN
BALSAM.

and electuary in cases of obstructed menses and hysteria. They are also sometimes used in preparing antiseptic and anodyne fomentations. (Ainslie; Mat. Ind. I., p. 483.)

Green or American Hellebore. See *Veratrum viride*, *Ajogni*, LILIACEÆ.

Greenheart Tree. See *Nectandra Rodiei*, *Schomb.*, LAURACEÆ.

Gregory's Powder. See under *Rheum*.

GREWIA.

604

Grewia asiatica, *Linn.*, TILIACEÆ

Vern.—*Phalsd*, *shukri*, BENG.; *HINDI*; *Putiki*, TEL.; *Parusha*, SANS.

A small tree, wild in Central India and Rajputana, and cultivated throughout India for its fruit, which are much eaten, being pleasantly acrid.

The fruit is supposed to possess astringent, cooling and stomachic properties; from it a spirit is distilled and a pleasant sherbet. The leaves are used as an application to pustular eruptions, and the buds are also prescribed by native practitioners. An infusion of the bark is used as a demulcent.

Ground nut. See *Arachis hypogaea*, *Linn.*, LEGUMINOSÆ.

GUAIACUM.

605

Gualacum officinale, *Linn.*, ZYGOPHYLLACEÆ.

LIGNUM VITÆ.

A small, evergreen tree of the West Indies and tropical South America. Sometimes cultivated in India.

The hard wood is much valued for making pulleys and the bearings of steam machinery. It contains a resin known as gum guaiacum. This is chiefly obtained from St. Domingo and Jamaica. It occurs as a natural exudation, increased by making artificial incisions. It is brittle, breaking with a clean, glassy fracture. It possesses stimulant, diaphoretic and alterative properties, and is a useful remedy for chronic forms of rheumatism, syphilitic and gouty affections. Guaiacum wood or Lignum Vitæ has a very dark heart-wood, owing to its being impregnated with the resin somewhat like Agallocha. Its properties are similar, although weaker than that of the resin.

Guaiacum is imported into India and sold by our chemists. Ainslie in 1826 urged the introduction of Guaiacum to India.

Guatteria longifolia. See *Polyalthia longifolia*, ANONACEÆ.

Guilandina Bonduc. See *Casuarina Bonducella*, LEGUMINOSÆ.

Gulancha. See *Tinospora cordifolia*, *Miers.*, MENISPERMACEÆ.

Gua cotton. See under *Gossypium*, MALVACEÆ.

Gurjun balsam. See *Dipterocarpus turbinatus*, DIPTEROCARPACEÆ.

GYMNOSPORIA.

Gymnosporia spinosa, H. f., CELASTRINÆ.

Vern.—*Kandibri*, *lôp*, *patchi*, *kamla*, *phupari*, PB.

606

A shrub with strong pines, common in the Trans-Indus, Salt Range, 10,000 feet, and to 3,500 feet in the low valleys of the outer Himalaya.
The smoke of the seeds is a cure for tooth-ache.

GYNANDROPSIS.

Gynandropsis pentaphylla, DC., CAPPARIDÆ.

Syn.—*CLEOME PENTAPHYLLA*, Linnaeus.

607

Vern.—*Hurkur*, *kathal parhar*, HIND.; *Hurhuriya*, *kendla*, BENG.; *Hulhul*, DEC.; *Vélai*, *vaminta*, TAM. and TEL.; *Kara-véla*, MAL.

Abundant throughout the warm parts of India and all tropical countries.

The leaves are used as a rubefacient and visicant; the expressed juice is given with salt in ear-ache; the seeds in powder are given with sugar internally in fevers and bilious complaints, and the entire plant with Sesamum oil is used as an ointment in cutaneous affections. (Ainslie; Wight; Drury.)

GYNOCARDIA.

Gynocardia odorata, R. Br., BIXINÆ.

CHAULMUGRA.

608

Vern.—*Chaulmugri* or *châlmugri*, *petarkura*, HIND., BENG.; *Kadu*, NEPAL; *Ták*, LEPCHA; *Toungpung*, MÁGH.

Forests of the Malayan Peninsula and Eastern India, as far north as Assam, extending thence along the base of the Himalaya as far west as Sikkim.

The seeds are alterative, tonic, and in large doses emetic. They yield an oil which is in India generally used in the cure of skin diseases, scrofula, &c. It is also largely prescribed for consumption and rheumatism, and as a specific against syphilis. The active principle of this oil, Gynocardic acid, has been separated and much recommended as an excellent form of administering the drug. In the treatment of phthisis the Chaulmugra oil has gained a European reputation, and a reputation which seems daily to be increasing, and justly. Dr. W. Murrell, Senior Assistant Physician to the Royal Hospital (London) for diseases of the chest (*See British Medical Journal*, 1880) says that he has been using Chanlmugra oil with marked success for the past few years. He prefers it to be administered along with milk, and commences with three drops three or four times a day and gradually increases the dose until the patient can take no more, which is about 10 minims, four times a day. The Chaulmugra seemed to Dr. Murrell first to act as an expectorant, the phlegm coming up more freely and with less trouble to the patient. When the patient comes under the influence of the medicine it at first causes watery diarrhoea, but this rapidly subsides, followed by a great desire for food which, if not satisfied, results in nausea. If rubbed freely upon the chest, both back and front, the relief to the cough is very marked. Mr. Christy, in his *New Commercial Plants*, publishes certain letters from private persons who speak in the highest terms of the use of the

HELICTERES.

oil in the cure of rheumatism. He recommends that the oil should be liquified by heat and then, with the fingers, well rubbed into the parts affected. About 5 drops of the oil, either in milk or in the form of capsules, should be taken at bed-time, and the quantity gradually increased, care being taken that the capsules are used after, not before, meals.

Gypsophila Vaccaria, W. & A. See *Saponaria Vaccaria*, Linn.,
CARYOPHYLLÆ.

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Hæmatoxylon campechianum, Linn., **LEGUMINOSÆ.**

LOGWOOD.

A native of Central America and the West Indies, imported into India.

Used to a certain extent in medicine, but chiefly as a colouring agent. The wood possesses astringent and tonic properties. It is used in chronic or atonic diarrhoea with great success. It has been used in leucorrhœa by a process of injection. The extract is used in the form of ointment in cancer.

Largely imported into India and sold both in the bazaars and in our chemists' shops.

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Hartshorn.

Vern.—Mrigasringa, SANS.

The antler of the deer, incinerated in closed vessels, is used in painful affections of the heart, pleurodynæa, sciatica and lumbago. (*U. C. Dutt.*) For Spirits of Hartshorn see *Ammonium carbonate*.

HEDYCHIUM.

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Hedychium spicatum, Ham., **SCITAMINEÆ.**

THE LESSER GALANGALE of *Ainslie*, according to *Royle*.

Vern.—Sit-rati, kapur kachri, HIND.; Klichur-kachu, ban kela, sakki, ban-haldi, khor, shalwî, PB.

This plant is common in parts of the Punjab Himalaya and Nepal, altitude from 3,500 to 7,500 feet.

The aromatic root-stocks are used as a stomachic, carminative, tonic and stimulant. They are also used in veterinary medicine; exported from Nepal and Kumaun to the plains.

HELICTERES.

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Helicteres Isora, Linn., **STERCULIACEÆ.**

Vern.—Maror-phall, jonka-phall, kapdi, bhendu, HIND.; Antmord, BENG.; Avartani, SANS.; Aita, GOND; Gubadarra, TEL.; Kewan, maradsing, BOM.; Thoognaychay, BURM.

A soft-wooded shrub, with grey bark, of the Sub-Himalayan tract, from the Jhelam eastward, Bengal, South and Central India, and Burma.

The fruits of this plant are made into liniment for sores of the ear. They are also internally administered for colic, its properties being chiefly based upon "the doctrine of signatures" which prevails in India now, as it did in Europe some centuries ago, the five curiously-twisted carpels indicating the contortions of the intestines.

HELIOTROPIUM.

Heliotropium brevisolum, Walp., BORAGINÆ.

Vern.—*Safed-bhangra, chiti phul, HIND.; Kharai, tindu, gorakh pamo, PB.*

A small plant, common in many parts of the Punjab.

The whole plant is laxative and diuretic; the juice is used as an application to sore-eyes, gum-boils and sores generally, to promote suppuration, and as a cure for the sting of nettles and insects. (Atkinson.)

H. europaeum, Linn.

Vern.—*Nil kattai, bithaa, atwin, popat batli, gidar tamak, PB., HIND.*

Common throughout the Punjab.

The plant is emetic, and also given after snake-bite, and, along with tobacco oil, is applied locally to the bite itself.

H. undulatum, Vahl.

Syn.—*H. RAMASISSIMUM, Sieb.*

Vern.—*Pipat-butti, jate misik, PB.*

Found in Punjab, Sindh, and the Upper Gangetic plain, altitude 1,000 feet.

Given after snake-bite, while tobacco oil is locally applied to the bite itself.

HELLEBORUS.

Helleborus niger, Linn., RANUNCULACEÆ.

BLACK HELLEBORE OR CHRISTMAS ROSE.

Vern.—? *Kala-kutki, BENG., DEC.; Kheritic or kartick, kherbek aswed, ARAB.; Kherbeck-seeah, PÉRE.; Katuroum, or katurohini, SANS.; Kadkgarun-ganie, TAM.; Katukarb-gani, TEL.*

A small, perennial herb, with black, jointed, definite rhizomes, having numerous interlacing rootlets. A native of Central and South Europe, with the Altai Mountains as its southern limit.

Ainslie says, with a degree of hesitation and doubt, that the plant which yields this drug is met with in Nepal, and he gives the above vernacular names for it. Dr. W. O'Steaghsnessy, in his *Bengal Dispensatory*, gives an abstract of Ainslie's information, and is followed by Birdwood in his *Bombay Products*, Kanai Lal De in his *Indigenous Drugs of India*, and later still, Murray in his *Drugs of Sind*. All these authors have simply compiled from Ainslie, altering the original information only so far as to remove the hesitation with which Ainslie published the statement that Hellebore was produced in Nepal. Even Ainslie derived his information from Dr. Kirkpatrick, who writes that it is known in Nepal as *kutka*, and that it also reaches India by way of the Red Sea. Dr. Dymock, in his valuable work on the *Materia Medica of Western India*, does not allude to Hellebore or to its Indian substitute. As a matter of fact, however, the plant has never been found in Asia in a wild state, and if it exists in India at all it could only be in the flower gardens at our hill stations, but it is doubtful if it could grow even there much below 10,000 feet in altitude. Mahomedan physicians do, however, prescribe a drug which is known as Hellebore, as also many others which neither grow nor are imported into India. Dr. Royle explains this by stating that the Mahomedans obtained their medical science from the Arabian physicians who, in their turn, learned it from the Greek authors. European plants have thus come to be known by name in India,

HELLEBORUS

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HERMODACTYLUS.

and Royle includes in his list of such the roots of the black Hellebore, remarking that the druggist, trusting to the indifference of the physician and the ignorance of the patient, substitutes for such drugs others with supposed similar properties. This is remarkable and curious; the symbolic "Recipe" being apparently in the eyes of the physician of more importance than the ingredients of the mixture, for one cannot quite believe that he is wholly ignorant of the non-existence of the medicines he has prescribed. It is amusing how persistently even the commonest hakika will mysteriously mention the almost sacred Greek synonyms for his drugs. A knowledge of such matters seems to constitute his highest credentials.

I have already drawn attention to the fact that *Actaea spicata* and *Cimicifuga foetida* (two common Himalayan plants related to Hellebore) are apparently not known by the Indian doctors to possess medicinal properties. I strongly suspect it is the roots of one or of both of these plants that are known as Hellebore in India, and are substituted for that drug. They are largely used to adulterate Hellebore in Europe and America, besides possessing distinct medicinal properties.

Hellebore is a drastic hydragogue, cathartic and also emmenagogue and anthelmintic. It was formerly held in high esteem and employed in the cure of mania, melancholia, epilepsy, dropsy, amenorrhœa, chronic skin affections and worms. In large doses it is an acro-narcotic poison. It is to a certain extent used both internally and externally in veterinary pharmacy. As referred to above, it is often adulterated with *Actaea* and *Cimicifuga*, but from these it may be at once distinguished by the absence of the medullary rays so characteristic of these roots, and by an infusion not becoming black on the addition of a solution of per-sulphate of iron. See *Actaea* and also *Cimicifuga*.

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Hellebore, Green. See *Veratrum viride*, *Aiton*, LILIACEÆ.

HEMIDESMUS.

Hemidesmus indicus, *R. Br.*, ASCLEPIADEÆ.

Vern.—*Anantamul*, BENG.; *Magreba*, HIND.; *Nannari*, DEC.; *Zaiyán*, ARAB.; *Aushbahe-hindi*, PERS.; *Gadugandhi*, TAM.; *Palasugandhi*, TEL.

A climber of North India from Banda to Oudh and Sikkim, and southward to Travancore and Ceylon.

Roots are officinal in the *Indian Pharmacopœia*, and are used as a substitute for sarsaparilla. They are said to be sweet, demulcent, alternative, diaphoretic, diuretic and tonic. Useful in loss of appetite, disinclination for food, fever, skin diseases, syphilis and leucorrhœa. It is scarcely necessary to do more than mention the name of this exceedingly useful medicine.

Hemlock. See *Conium maculatum*, *Linn.*, UMBELLIFERÆ.

Hemp, Indian. See *Cannabis Sativa*, *Linn.*, URTICACEÆ.

Henbane. See *Hyoscyamus Niger*, *Linn.*, SOLANACEÆ.

HERMODACTYLUS.

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Hermodactylus, sp.? LILIACEÆ.

Vern.—*Srinjan*, HIND.

Under this name are sold two or three kinds of bulbs, white and sweet, yellow and black, the former being bitter, the latter poisonous.

HIBISCUS

These bulbs are said to possess diuretic and sedative properties. They are prescribed in gout, rheumatism and dropsy.

Sir W. O'Shaughnessy (*Bengal Disp.*, 1841) describes two forms of these bulbs, one bitter, *Surinjan tulk*, said to come from Kashmir, and *Surinjan shirin*, from Arabia. After repeated trials with the former he came to the conclusion that it possessed all the properties of *Colchicum*.

Kanai Lal De, Rai Bahadur, repeats, 25 years later, the same information, and shortly after, the *Pharmacopœia India* republishes it, but our knowledge of the drug seems to have all the time remained stationary. The only additional information, in fact, is the identification of one of the corms referred to as obtained from *Colchicum variegatum*, Linn., which see.

HERNANDIA.

Hernandia peltata, Meissn., LAURACEÆ.

Vern.—*Uparanthi*, MYSORE; *Palati*, CINGH.

An evergreen tree with peltate leaves, found in the coast forests of the Andamans and Ceylon.

Beddome says that the wood is very light and takes fire readily, that the juice is a powerful depilatory, removing the hair without pain, and that the seeds and young leaves are cathartic.

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HERPESTIS.

Herpestis Monnieria, H. B. & Kth., SCROPHULARINEÆ.

Vern.—*Brahmi*, *jal-nim*, *shwet chamni*, HIND.; *Adha-birni*, BENG.; *Bâma*, BOM.; *Beami*, *nirpirimie*, TAM.; *Sambranichitté*, TEL.

An annual creeping plant, found in moist places near streams or on borders of tanks.

Ainslie says the root, as well as the stalks and leaves, are used by the natives medicinally as diuretic and aperient, and to be particularly useful in that sort of stoppage of urine which is accompanied with obstinate costiveness. Roxburgh states that the juice, mixed with petroleum, is rubbed on parts affected with rheumatism. The *Pharmacopœia* remarks that whatever benefit is derived from this formula is doubtless due to the petroleum.

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HIBISCUS.

Hibiscus Abelmoschus, Linn., MALVACEÆ.

MUSK MALLOW.

Syn.—*ABELMOSCHUS MOSCHATUS*.

Vern.—*Kasturi*, *kala-kasturi*, BENG.; *Mushk-dand*, HIND.; *Kasturu-benda*, DEC.; *Kathe-kasturi*, TAM.; *Karpura-benda*, TEL.; *Latâks-turikâ*, SANS.; *Hab-ul-mishâ*, ARAB.; *Balu-wâki*, BURM.

An annual, found in the rainy season in many parts of India.

The seeds of the Musk Mallow are regarded by the natives as cordial, stomachic, tonic and carminative. In the West Indies they are given in the cure of snake-bite, being administered both internally and externally. The author of the *Mukhsan-ul-Adwiya* recommends mucilage prepared from the root and leaves as useful in gonorrhœa of a chronic nature. They are largely used in native perfumery and to scent medicated oils. In the days of hair powder they were exported to Europe for perfuming powder and pomatum. Piesse states that "Musk seed, when ground, certainly reminds our smelling sense of the odour of Musk, but it is poor stuff at best; however, for making cheap *sachet powder* it may be used for variety's sake."

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HIBISCUS.

The leaves are, by Royle, said to be used in the North-Western Provinces of India to clarify sugar, and from the bark a good fibre is prepared. *See Abelmoschus* and *Hibiscus esculentus*.

622 ***Hibiscus cannabinus*, Linn.**

HEMP-LEAVED HIBISCUS; BROWN HEMP.

Vern.—*San*, HIND.; *Mesta-pat*, BENG.; *Ambari*, DEC.; *Palungu*, TAM.; *Ghongu-kuru*, TEL.

Cultivated in the North-West Provinces and the Punjab.

The seeds are used as an external application to pains and bruises.
The leaves are eaten as a pot-herb.

623 ***H. esculentus*, Linn.**

OKHRO or OKRA.

Vern.—*Bhindi*, rám-turdi, HIND.; *Dhénras*, rám-tordi, BENG.; *Gandha-mula*, SANS.; *Bhónḍá*, BOM.; *Bhindu*, GUZ.; *Vendi* or *Vendaik-kay*, TAM.; *Penda*, benda-kaya, TEL.; *Youn-padi-śi*, BURM.

A herbaceous annual, cultivated all over India for its fruit.

The mucilage from the fruits and seeds is used medicinally as a demulcent in gonorrhœa and irritation of the genito-urinary system. Roxburgh considers the fruit nourishing as well as mucilaginous, and views it as one of the best of esculent herbs in India. The whole plant, but particularly the capsules, is replete with much mild mucilage, and might with advantage be applied to all diseases requiring emollients and demulcents. Roxburgh strongly recommends its use in irritating cough. Waring, in his *Basar Medicines*, calls this plant Abelmoschus, and recommends a syrup composed of Abrus root, Abelmoschus and Sugar. It is very misleading to use the name Abelmoschus as a synonym for Okhro.

24 ***H. rosa-sinensis*, Linn.**

THE SHOE-FLOWER, Eng.; KETMI DE COCHIN CHINE, Fr.

Vern.—*Joba*, *jura*, *juwa*, *oru*, BENG.; *Anghara-hind*, PERS.; *Joba*, SANS.; *Shappathup-pu*, TAM.; *Java-pus-i-pamu*, TEL.; *Yasut*, DEC.

A much-favoured, ornamental bush, occurring without exception in every flower garden in the plains of India. There are many varieties, single and double, red, yellow, and white flowered.

In medicine the flowers are considered emollient, and an infusion of the petals is given as a demulcent. Moodeen Shariff Khan Bahadur reports favourably of an infusion of the petals as a demulcent and refrigerant drink in fevers. Wight recommends the fresh purple juice expressed from the petals as a substitute for blue litmus paper, but the paper must be freshly prepared each time otherwise acids will fail to change it.

625 ***H. Sabdariffa*, Linn.**

THE ROZELLE or RED SORELL of the West Indies.

Vern.—*Lal-ambari*, *patwa*, HIND., DEC., and BOM.; *Mesta*, BENG.; *Lala ambadi*, SIND.; *Sivappu-kashuruk-kai*, TAM.; *Erra-gom-kaya*, TEL.; *Polsch*, MAL.

A small, elegant shrub of which there are two varieties, one with red stems and red succulent and edible calyx, the other with green stems and green calyx. Widely cultivated throughout India and Ceylon.

The succulent calyx is used for the preparation of Sorell jelly, and sometimes for the purpose of preparing an acrid, refreshing drink in convalescence.

Hibiscus tiliaceus, Linn.

Syn.—*PARTIUM TILIACEUM*, W. & A.

Vern.—*Bola, chelwa, BENG.*; *Thengboe, BURM.*

Common in the coast forests of both Peninsulas, &c., in the Sunderbuns and on the river banks of Burma, and on the coast of Ceylon.

The bark is used in medicine.

HIPPOPHÆ.

Hippophaë rhamnoides, Linn., ELEAGNÆ.

Vern.—*Tsarap, tsarana, sirma, tsuk, tasru, LADAK, PITI and LAHOUL.*

A large, thorny shrub, of the inner tract of the North-West Himalaya, chiefly in moist, gravelly stream beds, from 5,000 to 10,000 feet.

The natives of Kanawâr are stated by Longden to eat it as a sort of *chatni*, but Aitchison mentions that those of Lahoul do not use it at all, although the above recipe is recommended for lung complaints in a Tibetan Pharmacopædia.

Hips. See *Rosa canina, Linn., ROSACEÆ.*

HIPTAGE.

Hiptage Madablotia, Gérin., MALPIGHIACEÆ.

Vern.—*Kampti, madmalti, HIND.*; *Endra, chopar, benkar, P.B.*; *Shem-pati, NEPAL*; *Haladwail, MAR.*; *Madubuluta, BENG.*; *Aita-lugaja, N. W. P.*

A common climbing shrub of most parts of India and Burma.

The leaves are esteemed useful in cutaneous diseases.

Hirudo. See *Leech.*

Hog. See *Adepa.*

HOLARRHENA.

Holarrhena antidysenterica, Wall., APOCYNACEÆ.

KURCHI OR CONESSI BARK.

Syn.—*H. CODAGA, G. Don*; *Wight's Icon. 1797*; *Kurs, II, 181*; *ECHITES ANTIDYSENTERICA, Roxb.*; *WIGHTIA ANTIDYSENTERICA, Grah. Cat. Bom. Pl. 114.*

Vern.—*Kureya, kaureya, karra, kaura, kora, karchi, dudhi, HIND.* *Kurchi, BENG.*; *Pandharkâra, opwâ kûra, BOM.*; *Kutaja (the bark)* and *Kalinga (the seeds), SANS.*; *Lasanul-aasfirul-murr, ARAB.*; *Zabane-kunjashke-talkh, PERS.*; *Kulap-palai-virai, veppalei, TAM.*; *Amkudu-vittum, TEL.*; *Leton-kryti, BURM.* The seeds are called *Karwa-indaryow, HIND.*, *BOM.*; *Tita-indarjow, BENG.*; *Kulappalai-virai, TAM.*

A small tree, common in the sub-Himalayan tracts, Bengal, Burma, Central and South India.

Kurchi bark is medicinally used as a tonic and febrifuge; but it is chiefly esteemed for its antidysenteric properties. That it is always a sure remedy for dysenteric affections has been borne out by the statements of many medical practitioners, both Native and European. Sub-Assistant Surgeon A. C. Kastogiri publishes a case in the *Indian Medical Gazette*, vol. I, p. 352, and says that he treated a child 15 months old suffering from dysentery, with the decoction of the bark and met with success after every other medicine had been tried. Dr.

HOPEA.

Gibson also speaks to the antiperiodic virtues of the bark. Sir Walter Elliot regards Conessi as one of the most valuable of Indian medicinal products. Dr. Dymock also writes highly in its favour.

The seeds are considered by the Arabic and Persian writers as possessed of carminative and astringent properties, and are used in chronic chest affections, such as asthma, and also in colic and diuresis. They also attribute tonic and aphrodisiac properties to the seeds.

For many years great confusion existed about the identity of this plant. It was in India adulterated with or mistaken for the plant known as *Wrightia tinctoria*, and hence Conessi Bark has fallen into disrepute owing to the inert action of its adulterant.

In the *Pharmacopœia Indica*, p. 455, will be found an interesting account by Wight of the early error of confusing the Indian plant now known as *Holarhena antidysenterica*, Wall., with a Ceylon species of *Wrightia*. Linnaeus, while preparing his *Flora Zeylanica*, found a specimen in Herman's Herbarium of what was then known as *Nerium-indicum Siliquis angustis*. Identifying a specimen in Rheedea's herbarium, (the bark of which Rheedea described as *antidysenteric*), the same as the Ceylon plant, Linnaeus gave them jointly the name of *Wrightia antidysenterica*, thus combining two genera into one species. The Ceylon plant has, however, for nearly 100 years been separated, and to free it from ambiguity has been called *Wrightia Zeylanica*, R. Br., while Rheedea's *Codaga pala* has been identified as *Holarhena antidysenterica*, Wall. (*Echites antidysenterica*, Roxb.) While this is so it is remarkable to find in the *Pharm. Journal*, 3rd series, XII, 257, and reproduced in the *Year-book of Pharmacy* for 1882, an article written by Kanai Lal De, Rai Bahadur, in which Dr. Lindley's description of *Wrightia* is reproduced verbatim (following O'Shaughnessy's *Bengal Dispensatory*), along with a paragraph describing the properties of *Holarhena*. This unfortunate reproduction of the old error in the *Pharmaceutical Journal* of Great Britain is alluded to chiefly with the view of pointing out the necessity of more careful discrimination, for there cannot be a doubt, as urged by Roxburgh, Ainslie, Sir Walter Elliot and many other authors, the valuable Conessi Bark (the bark of *Holarhena antidysenterica*) has not taken its proper place as a medicinal product owing to inert barks being exported to Europe under that name. The principal adulterants are *Wrightia tinctoria*, Br., a tree met with in Central India, the Western Peninsula and Burma; *W. tomentosa*, Roem, a tree of tropical India from the Indus eastward and southward to Ceylon and Burma; and *W. Zeylanica*, Br., a native of Ceylon.

For the distinctive characters of the two genera see OILS and OIL-SEEDS.

Honey. See Mel.

Honey and Borax (Mel-Boraces). See Mel.

Hop. See *Humulus lupulus*, Linn., CANNABINEÆ.

HOPEA.

630 **Hopea odorata**, Roxb., DIPTEROCARPEÆ.

Vern.—*Thingan*, BURM.; *Rimdd*, AND.

A large, evergreen tree of the eastern forests; Rangoon, Pegu, Martaban, Tenasserim and the Andaman Islands.

Yields a fragrant resin used in the form of a powder as a styptic by the Burmese. Its action is probably mechanical (*Pharm. Ind.*)

Medicines.

HORDEUM.

Hordeum hexastichum, Linn., GRAMINEÆ.

BARLEY.

Vern.—*Jab, jau*, BENG.; *Jau, zéj*, HIND.; *Shaa'ir*, ARAB.; *Jau*, PERS.
Barley-arish, TAM.; *Barley-biyam*, TEL.; *Mu-yam*, BURM.

Barley is largely cultivated in the North-Western Provinces and the Punjab, where it is used as food by the poorer classes.

The husked seeds form pearl barley, a favourite food for invalids, and in decoction a drink in fevers. (Atkinson.)

Barley-water is used for irritation of genito-urinary system and gonorrhœa. (Dr. Emerson.)

Horse-radish. See *Cochlearia Armoracia*, *Linn.*, CRUCIFERÆ.

Horse-radish. See also *Moringa pterygosperma*, *Garin.*, MORINGÆ.

Hoya viridiflora, R. Br. See *Dregea volubilis*, *Benth.*, ASCLEPIADEÆ.

HUMULUS.

Humulus lupulus, Linn., URTICACEÆ.

HOP.

Vern.—

This plant has been cultivated in Kashmir and Dehra Dún. It has been tried at many other places with more or less success.

The dried strobiles of the female plant are officinal. They are said to be tonic, stomachic and mildly narcotic, and used in atonic dyspepsia, nervous affections attended with sleeplessness, hysteria, intermittent fevers, and rheumatism, and in also certain irritable states of the genito-urinary system as spermatorrhœa, chordie and enuresis (*Pharm. Ind.*) Hops are used as a soporific, being for this purpose put into a pillow.

HYDNOCARPUS.

Hydnocarpus Wightianum, Bl., BIXINÆ.

Syn.—*H. INEBRIANS*, Wall; *Wight Icon. t. 16.*

Vern.—*Kowti*, BOM.; *Yetti, maratti*, TAM.; *Kosto*, GOA; *Makâlî*, CINGH.

A common tree of the Western Peninsula from the Concan along the coast ranges.

The seeds have been long used by the people on the west coast ranges in the cure of obstinate skin diseases. The oil expressed from them much resembles *Chaulmugra*, giving a green re-action with sulphuric acid. It is recommended as a substitute for *Chaulmugra*, and is much cheaper.

Hydrargyrum.

MERCURY.

Hydrochloric Acid.

HYMENODICTYON.

HYDROCOTYLE.

636 **Hydrocotyle asiatica**, Linn., UMBELLIFERÆ.

ASIATIC PENNY-WORT.

Vern.—*Frdhamamandubi*, *khulakhudi*, HIND.; *Artaniyal-hindi*, ARAB.; *Thulkuri*, BENG.; *Vullari-kire*, TAM.; *Munduka-brummi*, TEL.; *Brahmi*, *karinga*, BOM.

A small, herbaceous plant, found in damp places in Bengal and South India.

The leaves of this plant have been made officinal in the *Indian Pharmacopœia*. They are described as alterative, tonic, and when locally applied, stimulant, used in leprosy with good results. In secondary or constitutional syphilis, they are of great value. In ulcers and skin diseases, they are prescribed both internally and as an external application. Atnslie says that an infusion of the leaves with Fenugreek is given to children in bowel complaints and fever. On the Coromandel Coast the leaves are applied to the parts that have suffered from blows and bruises. (*Pharm. Ind.*; *U. C. Dutt*; *Dymock*.)

637 **Hydrocyanic Acid.**638 **Hydrogen, Sulphuretted.**639 **Hygrophila spinosa**, T. And., ACANTHACEÆ.Syn.—*ASTERACANTHA LONGIFOLIA*, Nees.

Vern.—*Talmakbara*, HIND.; *Kuliakhara*, BENG.; *Talimkana*, BOM.; *Nirmalli*, TAM.; *Ikshugandha*, *kokilaksha*, SANS.; *Nirguvi veru*, TEL.

A small spring bush common everywhere in moist places.

The root is diuretic and was used in a drop-salve by Dr. Kirkpatrick. Dr. Gibson also bears testimony to its diuretic properties, and it is used both by Mahomedan and Hindu physicians; the former regard the seeds as aphrodisiac. The leaves are described as cooling and useful in jaundice and anasarca. The root is also considered cooling, bitter, and tonic, and is used in rheumatism, urinary affections, and anasarca. The seeds are given for gonorrhœa, and with milk and sugar in spermatorrhœa.

HYMENODICTYON.

640 **Hymenodictyon excelsum**, Wall., RUBIACEÆ.Syn.—*CINCHONA EXCELSA*, Roxb.

Vern.—*Bhaulon*, *bhalena*, HIND.; *Kalakurwah*, BOM.; *Bandari*, DEC.; *Bartu*, PB.; *Bandark*, TEL.; *Sagapu*, TAM.

A large, deciduous tree with smooth bark, met with on the dry hills at the base of the Western Himalaya, throughout the Deccan and Central India to the Annamallays, also in Tenasserim and Chittagong.

The inner bark is bitter and astringent, and is used as a febrifuge. The outer layer of the bark is tasteless. The *Pharm. India* suggests that in all future enquiries into the subject of Indian antiperiodics this bark should be one of the first to which attention should be directed.

Hyoscyamus niger, Linn., SOLANACEÆ.

HENBANE.

Vern.—*Basrul, khorasani ajowan, BENG., HIND.; Kurashani-yomam, TAM.; Kurasani-vamam, TEL.*

It was originally a native of Central Asia, now cultivated in India in the Saharanpore Botanical Gardens, and in the neighbourhood of Agra and Ajmere.

The dried leaves of the plant are described in the *Indian Pharmacopeia* as anodyne, sedative and antispasmodic. Useful in nervous irritability, mental excitement, sleeplessness and various other disorders which affect the mind. As an external application it has been employed in neuralgic and rheumatic affections, painful glandular enlargements, irritable ulcers and haemorrhoids. In diseases of the eye it proves to be a valuable remedy.

Hyperanthera Moringa, Vahl. See Moringa pterygosperma, Cacrin., MORINGEE.

HYPERICUM.**Hypericum perforatum, Linn., HYPERICINEÆ.**

Vern.—*Bassant, dendru, HIND., PB.*

A perennial herb, found in the temperate Western Himalaya, from Kumaun, altitude 6,000 to 9,000 feet, to Kashmir, altitude 3,000 to 6,500 feet.

It is recommended in Arabian medicine as a vermifuge.

HYPHÆNE.**Hyphaene thebaica, Dcne., PALME.**

Vern.—*Oka-mundel, DIU ISLAND.*

Cultivated in Bombay as an ornament.

Birdwood mentions this plant amongst his drugs, but is silent as to its medicinal properties.

HYPOXIS.**Hypoxis orchioides, AMARYLLIDÆ.**

Syn.—*CURCULIGO ORCHIOIDES, Gartn.*

Vern.—*Káli-másli, siyáh, másli, HIND.; Mushali, SANS.; Káli-másli, DEC.; Nilap-tali-gaddalu, TEL.; Nelappana-kishanna, MAL.; Talura, BENG.; Kali-musti, GUZ.*

Common in most parts of India.

The tuberous roots are considered alterative, tonic, restorative, and useful in piles, debility and impotence. Also useful in gonorrhœa, dysuria and menorrhagia. (*Hindu Mat. Med.; Pharm. Ind.*)

HYSSOPUS.**Hyssopus officinalis, Linn., LABIATE.**

Vern.—*Zéfah yábis, HIND., ARAB., PERS.*

Dr. Dymock thinks that there is some mistake as to the identification of the product which bears this name. I have not yet been able to see

a specimen, but judging from Dr. Dymock's description I should be disposed to adopt his opinion.

Specimens and further information would be most acceptable.

Used for coughs and asthma in infusion; also in tooth-ache, uterine or vesical affections, and indurations of the liver or spleen. Leaves are said to be stimulant, stomachic, emmenagogue and carminative; useful in hysteria and colic. Also used as a poultice to bruises, especially of the eyes.

The sap of the leaves made into a syrup with sugar and honey is used as a vermifuge for round-worms. (Dr. Emerson.)

Iceland Moss. See *Cetraria islandica*, *Achar.*, LICHINES.

ICHNOCARPUS.

646 **Ichnocarpus frutescens**, Br., APOCYNACEÆ.

Syn.—*ECHITES FRUTESCENS*, Roxb. Fl. Ind. II., 12.

Vern.—*Syamla*, BENG.; *Dudhi*, HIND.; *Nala-tiga*, TEL.

An extensive climber, met with on the Western Himalayas from Sirmore to Nepal, altitude 1,000 to 2,000 feet; Upper Gangetic Plain from Delhi to Bengal, Assam, Silhet, Burma and Ceylon.

The root possesses alterative and tonic properties, and is employed as a substitute for sarsaparilla. The stalks and leaves are used in the form of decoction in fevers.

Ichthyocolla. See *Acipenser*.

Ignatius' Bean. See *Strychnos Ignatii*, *Bergius*, LOGANIACEÆ.

ILLICIUM.

647 **Illicium anisatum**, Linn., MAGNOLIACEÆ.

THE STAR ANISE.

Vern.—*Anaphal*, *sonf*, HIND.; *Badian*, BOM.; *Ana shuppa*, TAM.; *Badian*, PERS.; *Risiya naje*, ARAB.

Indigenous to China and Japan. There are two imperfectly known species of this genus met with in the mountains on the Eastern frontier of India—*I. Griffithii*, *H. f.* & *T. T.* on the Khásia hills, in Bhutan, and *I. Majus*, *H. f.* & *T. T.* in Tenasserim.

While the Star Anise has long been in use in China and Japan, it has only been used in modern times in India. It is chiefly used in Europe to flavour spirits, the greatest consumption being in Germany, France and Italy. It is not used as a medicine in Europe, but in India is regarded as stomachic and carminative. It is viewed as of great service in flatulent and spasmodic affections of the intestinal canal.

Dr. Dymock mentions that a consignment of a kind of *Star Anise* recently reached Bombay which was found unsaleable, and chiefly because the fruits were almost devoid of scent. He arrives at the conclusion that they were the produce of *I. Griffithii*, basing his opinion apparently upon the fact that they had 13 instead of 8 carpels. It would be interesting to discover how the bales of fruits of *I. Griffithii* found their way from the Khásia hills and Bhutan to Bombay. I found a new and distinct species of Star Anise in Manipur, a common handsome tree in the forests of the regions bordering on Burma. It had 8 to 10 carpels, but I was unable to procure perfect fruits.

INDIGOFERA.

***Indigofera aspalathoides*, Vahl., LEGUMINOSE.**

648

Vern.—?

Found in the plains of Carnatic and Ceylon.

The leaves, flowers and tender shoots are said to be cooling and demulcent, and are employed in decoction in leprosy and cancerous affections. The root is chewed as a remedy for toothache and aphæ. The whole plant, rubbed up with butter, is applied to reduce oedematous tumours. A preparation is made from the ashes of the burnt plant to remove dandriff from the hair. The leaves are applied to abscesses, and an oil is obtained from the root, which is used to anoint the head in erysipelas. (Ainslie; Rheeße.)

I. *enneaphylla*, Linn.

649

Met with in the plains of India from the Himalayas (where it ascends 4,000 feet) to Ceylon and Burnia.

Ainslie says that the juice of this plant is used as an antiscorbutic, alterative, and diuretic.

I. *linifolia*, Retz.

650

Vern.—*Torki*, HIND.

A small, prostrate plant, common in the plains up to near the Indus. Found throughout India from the Himalayas to Ceylon.

It is given medicinally in febrile eruptions.

I. *tinctoria*, Linn.

651

INDIGO.

Vern.—*Nil*, HIND., BENG., PERS.; *Nilaj*, ARAB.

Extensively cultivated in Bengal, the North-Western Provinces, Punjab, Sind, and South India.

The extract is given in epilepsy and nervous disorders. It is also used in bronchitis and as an ointment in sores. It is largely used as a test.

I. *trifoliata*, Linn.

652

Vern.—The seeds are called in Bombay *Wekaria*.

Found on the Himalayas (ascending to 4,000 feet in Kumaun) extending to Ceylon and Tenasserim.

The seeds are prescribed as a restorative (*Dymock*).

INULA.

***Inula racemosa*, Hook. f., COMPOSITE.**

653

ELECAMPANE, Eng.; ANNÉE, Fr.; ALANT, Ger.

Syn.—I. HELENIUM, Herb. Ind. Or. H. f. & T. not of Linn.

Western Himalaya, on the borders of fields, &c.; Kashmir, altitude 5,000 to 7,000 feet; Piti, altitude 9,000 to 10,000 feet.

The root of this plant is used in veterinary medicine. The dry roots have a weak, aromatic odour, resembling Orris and Camphor; their flavour is aromatic and slightly bitter, and their action a mild tonic.

Iodium Iodine.

654

Ipecacuanha. See *Cephaelis Ipecacuanha*, Rich., RUBIACEÆ.

155

IPOMEA.

IPOMEA.

655 *Ipomoea batatas*, Chois., CONVOLVULACEÆ.

Vern.—*Shakarkand* or *Ranga ulu*, BENG.; *Shakarkand*, HIND., PERS.;

Vulli-his-hangū, TAG.; *Kaswan*, BURM.

A perennial creeper of the Indian Archipelago, now cultivated all over India.

The roots of this plant have a laxative property.

656 *I. biloba*, Forsk.

Syn.—I. MARITIMA, R. Br.; Blume; I. PES-CAPRE, Roth.; Chois.; DC.

Prod.; Dals and Gibbs' Bomb. Fl.; CONVOLVULUS PES-CAPRE, Linn., Roxb. Fl. Ind.; C. BILOBATUS, Roxb.

Vern.—*Dopati-latā*, HIND.; *Chhágulkaru*, BENG.; *Marjddvel*, BOM.

A common plant near the sea, especially on the western coast. Roxburgh remarks of it that it is most useful in binding loose sand, thereby preparing the way for the growth of other plants upon previously barren shifting sands. Goats, horses and rats are also said to feed upon it. From the summit of the thick, fleshy, tap root spread many succulent red branches, bearing bi-lobed leaves on long petioles, very much resembling a Bauhinia leaf.

"The parenchima of the root contains starch and large conglomerate raphides. The whole plant is very mucilaginous. The leaves are applied externally in rheumatism and colic.

657 *I. bona-nox*, Linn.

THE MOON-FLOWER, a name derived from the fact that the large, white and sweetly-scented flowers open only at night.

Syn.—CALONYCTION SPECIOSUM, Chois.

Vern.—*Dudiya-kulmi* (I. GRANDIFLORA, Roxb.); *Kulmilatā* (LETTSONIA BONA-NOX, Roxb.), BENG.; *Gul-chandni*, BOM.; *Pathmapu-todami*, SANS.; *Naga-míghatci*, TAM.; *Munda-valli*, ? MAL.; *Nway-ka-sundphyoo* (I. grandiflora), BURM.

A native of America, early introduced to India, and in some parts of the country now become quite naturalised.

Roxburgh described two forms—one *Lettsonia bona-nox* he recognised as the true American form, and to the other he gave the name of *I. grandiflora*. According to the *Flora of British India* these differ chiefly in that the leaves of the latter are never lobed; *I. grandiflora*, Roxb., is therefore reduced to a variety. It is at present impossible to separate the vernacular names given to these plants, and it cannot be discovered if only one or both indiscriminately are used medicinally in India. The plant chiefly met with is the *I. grandiflora*, Roxb.

The four large seeds of this plant are eaten when young. Dried, the capsules and seeds, as well as the flowers, leaves and roots are included amongst the medicines supposed to have some merit as remedies against snake-bite.

I. caerulea, Koen. See *I. hederacea*, Jacq.

658 *I. digitata*, Linn.

Syn.—I. PANICULATA, R. Br.; CONVOLVULUS PANICULATUS, Linn.; Roxb. Fl. Ind.; BATATAS PANICULATA, Chois.

Vern.—*Bilai-kand*, bhámi-kámra, bhái-kumra, BENG.; *Bhui-kohala*, BOM.; *Matta-pal-tiga*, TEL.; *Phal-modecca*, MAL.; *Vidari* and *Bhumika-shmónda*, SANS.

A native of tropical India from Bengal and Assam to Ceylon.

Largely cultivated on account of its large red flowers.

The large tuberous roots are very much used in native medicine, being regarded as tonic, alterative, aphrodisiac, demulcent, and lactagogue. The powdered root-stock is given with wine, for the purpose of increasing secretion of milk. Dymock says that the tuberous roots are very extensively used in Bombay, and that the young tapering roots of a small variety are known in the herbalists' shops as *Asgand*.

Ipomoea hederacea, Jacq.

Syn.—I. CERULEA, Koen; Roxb. Fl. Ind.; CONVOLVULUS NIL, Linn.; C. HEDERACEUS, Linn.; PHARBITIS HEDERACEA and P. NIL, Chois.

Vern.—Nil-kulmi, BENG.; the seeds are officinal and are known as *Káld-dána*, mirchai, HIND., BENG. and BOM.; Kodikakkatan-virai, TAM.; Hab-un-nil, ARAB.; Tulom-i-ni, PERS. Moodeen Shariff says the Deccan name *Kali-siki* should be exclusively applied to the seeds of this plant, but they have also caused great ambiguity by being applied to the seed of *Clitoria Ternatea*, Linn. (which see).

A common plant, widely cultivated in India, where it is also apparently wild. The seed is used medicinally.

The author of the *Makhsan-ul-Adwiya* says that this drug is a drastic purgative, useful in the treatment of bilious and phlegmatic humours, and that it acts also as an anthelmintic. Roxburgh was the first to make these seeds known to European physicians, and it may be said they now hold an important position as a useful and cheap substitute for Jalap. They were made officinal in the *Pharm. India* in 1868, in which will be found directions to prepare the forms in which the drug is now administered, namely, in the form of a tincture, an extract, a compound powder, or a resin, supplying the place of the corresponding preparations of Jalap. The resin appears to be the most satisfactory form of administering the medicine, the dose of which is 4 to 8 grains. This substance is known as Pharbitism.

The seeds of *I. muricata, Jacq.*, are often sold as an adulterant for the true *Káld-dána*. (O'Shaughnessy, Bidie, Kani Lal De, U. C. Dutt, Dymock, the *Pharmacographia, Pharm. Ind.*, &c.)

I. muricata, Jacq.

Syn.—Roxb. Fl. Ind. I. 499; I. BONA-NOX, Bot. Reg.; CONVOLVULUS MURICATUS, Linn.; CALONYCTON MURICATUM, G. Don.; C. BONA-NOX, Chois., var. MURICATA, Chois. in DC. Prod.

Vern.—Tulkni-ni, imported into Bombay from Persia.

Common in India, cultivated and apparently wild, in some of its forms approaching so close as to be almost indistinguishable from some of the conditions of *I. hederacea, Jacq.*

Used chiefly as an adulterant for the preceding species, from which they can be distinguished by their larger size, lighter colour and thick testa. (Dymock.)

I. purga, Hayne.

JALAP.

A native of Mexico, but now growing freely in the south of Europe. The drug is imported into India and sold by chemists.

I. reniformis, Chois.

Syn.—CONVOLVULUS RENIFORMIS, Roxb.

Vern.—Indirkáni.

A small, procumbent plant with reniform leaves and small yellow flowers; common in the hotter parts of India in damp places.

The plant is described as deobstruent and diuretic.

659

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IRON.

663 *Ipomoea Turpethum, Br.*

* TURPETH ROOT.

Syn.—*CONVOLVULUS TURPETHUM, Roxb.*Vern.—*Pitohri, naikpalar, nisot, tarbud, HIND.; Teori, BENG.; Trivorit, triputa, SANS.; Shavadai, TAM.; Nishotar, phootkuri, BOM.; Turbund, ARAB.*

Found throughout India, altitude 3,000 feet, and Ceylon.

There are two varieties of this plant mentioned by the Sanskrit writers, one white and the other black. The white kind is generally used, but the black is said to be poisonous, and Mahomedan writers describe it as a drastic purgative, useful in rheumatic and paralytic affections. Dr. Dymock remarks that it is not clear what is meant by the black *turbund*. The white root is in the hands of natives a useful purgative, and seems to deserve further consideration.

IRIS.

664 *Iris ensata, Thunb., IRIDEA.*Syn.—*I. MOORCROFTIANA, Wall.*Vern.—*Irisa, sosun, HIND.; Krishn, anarjal, marjal, KASHMIR; Begounipoksha, PERS.*

Common on the temperate North-West Himalaya and Kashmir, in damp places, often grown in gardens.

There seems considerable doubt as to the identification of the *iris* root; in fact, it is not by any means proved to be obtained from this plant. Stewart says it is used externally in the treatment of rheumatism.

665 *I. kumaonensis, Wall.*Vern.—*Pids, karkar, terma, PB.*

An exceedingly plentiful plant in the grassy slopes of the temperate and alpine North-West Himalaya, especially in Lahoul and Ladak, and in the Chenab and Ravi basins generally.

Dr. Stewart states that in Chumba, the root and the leaves are given in fever. In parts of Ladak the leaves appear to be given as fodder.

666

Vern.—*Chainendar, sosan, shoti, chilachi, PB. and N.-W. P. HIMALAYAN NAMES.*

A very plentiful plant in Nepal, extending west to the Sutlej and the Beasa, and met with in cultivation in Kashmir, being the broad-leaved form often seen in grave-yards in the Punjab.

Iron. See *Ferrum*.

667 Iron pyrites.

Vern.—*Svarnamakshika, taramdkshika, SANS.*

" Iron pyrites is met with in many parts of India, and has been used in medicine from a very remote period. It occurs in two forms—in dark yellow nodules with a golden lustre, and in silvery radiated crystals. The former is called *Svarnamakshika* and the latter *Taramdkshika*. The ancients supposed that they contained gold and silver respectively, in combination with other ingredients, and possessed in part the properties of those precious metals. . . . It is considered as tonic, alterative and useful in anæmia, urinary diseases, ascites, anasarca, prurigo, eye

diseases, &c. As an alterative tonic it is generally used in combination with other medicines of its class, such as iron, talc, mercury, &c." (U. C. Dutt.)

ISINGLASS.

Isinglass.

668

Vern.—*Ghari-us-sahrak*, ARAB.; *Sireshame-mahi*, PERS.; *Machhi-ka-sirish*, HIND.; *Min-vajram*, TAM.; *Chepa-vajramu*, TEL.

Used with milk in phthisis.

JASMINUM.

Jasminum grandiflorum, Linn., OLEACEAE.

669

Vern.—*Chambel*, *jati*, HIND.; *Yati*, SANS., BENG.; *Chambeli*, BOM.; *Myablay*, BURM.

Found in the Himalaya, often cultivated.

The flowers and their essence are used as an application in skin diseases, head-ache and weak eyes. The leaves are used in tooth-ache, skin diseases, ulcers in the mouth, &c. The fresh juice of the leaves is applied to corns between the toes. The leaves are chewed in ulcerations or eruptions in the mucus membrane of the mouth. According to Mahomedan writers the plant possesses deobstruent, anthelmintic, diuretic and emmenagogue properties. (U. C. Dutt; Dymock.)

J. officinale, Linn.

670

Vern.—*Chamba*, *chirichog*, *kiri*, KASHMIR; *Bansu*, *kwer*, *dumni*, CHENAB; *Dassi*, *sanosem*, RAVI; *Suni*, *somun*, SUTLEJ; *Chambeli*, KUMAUN.

A climber of the Salt Range and Himalaya, from the Indus to the Sarda.

The root has been found useful in ringworm.

J. revolutum, Sims.

671

Vern.—*Chamba*, *juari*, *tsonu*, *tsuman*, *summun*, *kuja*, PB.; *Sonajahi*, KUMAUN.

A small shrub, with soft, thin, grey bark, met with in Afghanistan, the Salt Range, and the Himalaya, from the Indus to Nepal, extending to Nilgiris and Ceylon.

Useful in ringworm.

J. Sambac, Aiton.

672

Vern.—*Chamba*, *mugri*, *bel*, HIND.; *Mullichophul*, *bel*, BENG.; *Vársiki*, SANS.; *Malippu*, TAM.; *Mogra*, BOM.; *Sapai*, *mali*, BURM.

A fragrant, climbing shrub, cultivated throughout India.

The flowers, according to the report of Mr. J. Wood, possess considerable power as a lactifuge. He says that they can arrest the secretion of milk in the puerperal state in case of threatened abscess. (*Pharm. Ind.*)

"Considered by natives cool and sweet; used as a remedy in cases of insanity, in weakness of sight and affections of mouth." (Baden-Powell.)

JATEORHIZA.

Jateorhiza palmata, Miers., MENISPERMACAE.

673

CALUMBA Root.

Syn.—*J. Columba*, Miers.; *J. Miersii*, Oliver; *Cocculus palmatus*, DC.

Columba grows in the forests of East Africa, along the Mozambique coast in the Zambesi country, and Madagascar. It was introduced

Economic Products of India.

JUGLANS

into Bombay most probably by the Portuguese. It obtained its commercial name from having first reached England from Columba.

A tincture or an aqueous infusion of the root of the Kalumb is much used as a mild tonic. The root is also held to be stomachic. In general debility, atonic dyspepsia, gastric irritability, vomiting attendant on pregnancy, and in the advanced stage of diarrhoea and dysentery, it has been found of great value.

JATROPHA.

674 Jatropha Curcas, Linn., EUPHORBIACEÆ.

THE PHYSIC NUT.

Vern.—*Bagberenda, safedind, HIND.; Kadam, NEPAL; Kaat-amunak, TAM.; Nepalam, TEL.; Thinban-kyeksu, BURM.*

A soft-wooded, evergreen shrub, indigenous in America, cultivated in most parts of India.

The seeds yield an oil which is used as a purgative and emetic medicine, and also as an application in cutaneous diseases. (Gamble.) In overdoses the seeds act as an acro-narcotic poison. The diluted oil forms a useful embrocation in chronic rheumatism. The leaves are extensively used in the Cape de Verd Islands, in the form of decoction and cataplasm to the mammae, as a lactagogue. (Pharm. Ind.)

675 J. glandulifera, Roxb.

Vern.—*Addalay, TAM.; Nela-amida, TEL.; Nikumba, SANS.*

The above vernaculars were given by Ainslie in the first instance to the South India names for a plant he called *J. glauca*, Vahl. This plant was subsequently referred to *J. glandulifera*, Roxb., by Drury in his *Useful Plants of India*, and through Drury they crept into all subsequent writings as the vernacular names for Roxburgh's plant.

The seeds yield an oil which is highly esteemed as a stimulant application in rheumatism and paralysis, and has violent purgative properties. The seeds are irritant and poisonous.

676 J. multifida, Linn.

The seeds are regarded as purgative and emetic. Lime juice and stimulants are the best remedies in cases of poisoning by these seeds.

Jinjili oil. See *Sesamum indicum*, Linn., SESAMEÆ.

Jonesia asoka, Roxb. See *Saraca indica*, Linn., LEGUMINOSÆ.

JUGLANS.

677 Juglans regia, Linn., JUGLANDÆ.

WALNUT.

Vern.—*Akkrot, HIND.; Akrut, BENG.; Charmaghs, PERS.; Akhar, KASH-MIR; Konla, LEPCHA.*

A large tree, wild in the North-West Himalaya, largely cultivated in the hills.

The bark is used as an astringent medicine.

JUNIPERUS.

Juniperus communis, Linn., CONIFERE.

THE JUNIPER.

Vern.—*Nâch, pâma, pattra, ventha, KASHMIR, CHAMBA and KULU; Chichia, KUMAUN.*

A large shrub, with thin, reddish brown, fibrous bark, of the North-West Himalaya, ascending to 14,000 feet, extending eastward to Kumaun, mountains of Western Asia and Europe.

"It is sold in the bazars of North India as a medicine (*abkul, hâber*), and is administered in decoctions as a stimulant and diuretic." (Gamble.)

"Juniper fruit and oil possess carminative, stimulant and diuretic properties. They are useful in different forms of dropsies, either administered alone, or in combination with other diuretics. They have been used in mucus discharges as gonorrhœa, gleet and leucorrhœa; and in some cutaneous diseases. The wood has been regarded as sudorific in its action, and has been substituted for Guaiacum and Sassafras." (Bentley & Trimen.)

J. excelsa, M. Bieb.

THE HIMALAYAN PENCIL CEDAR.

Vern.—*Aburs, BILUCH; Chalai, shukpa, shér, luir, shurbuta, HIMALAYAN NAMES; Dhupi, dhupri, chandan, NEPAL.*

A moderate-sized tree, with thin, reddish-brown, fibrous bark of the arid tract of the North-West Himalaya and Western Tibet, extending eastward to Nepal, mountains of Afghanistan, and North Biluchistan.

The fruit is used medicinally, and the smaller branches are burnt near the patient as a remedy for delirium in fever.

J. Sabina, Linn.

COMMON SAVINE.

A small bush found in Central and South Europe and Asiatic Russia.

"The fresh and dried tops are officinal and imported into India. They are an acrid stimulant and emmenagogue; in large doses poisonous; useful in amenorrhœa, leucorrhœa, passive menorrhagia, habitual abortion, and other uterine affections; externally applied to syphilitic warts and skin diseases." (Pharm. Ind.)

JURINEA.

Jurinea macrocephala, Benth., COMPOSITÆ.

Syn.—*DOLOMEA MACROCEPHALA*, DC.

Vern.—*Dhâsp, dhépa, gégal, Pa.*

Common in Punjab from the Sutlej up to the Indus at from 10,500 to 13,000 feet.

The bruised root is applied to eruptions, and a decoction is given in colic. It is also considered cordial and given in puerperal fever. (Dr. Stewart.)

JUSTICIA.

Justicia Adhatoda, Linn. See *Adhadota Vasica Nees.*, ACANTHACEÆ.

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KALANCHOE

- CHEM.** *J. bicayculata*, Wight. See *Peristrophe bicayculata*, Nees.
J. Gendarussa, Linn. See *Gendarussa vulgaris*, Nees.

KÄMPFERIA.

- 682 **Kämpferia rotunda**, Linn., SCITAMINÆ.

Vern.—*Chundd-mela*, HIND.; *Bhuchampaca*, *bhémichampaca*, SANS.
Rhuin-champa, BENG.

Cultivated throughout India.

This species and *K. Galanga* are both employed medicinally by the natives. (Pharm. Ind.)

Kaladana. See *Pharbitis Nil*, Chois., CONVOLVULACEÆ.

KALANCHOE.

- 683 **Kalanchoe laciniata**, DC., CRASSULACEÆ.

Vern.—*Hemsdgar*, HIND., BENG., SANS.; *Zakhmhydt*, BOM.; *Mala-hullie*, TAMIL.

Found in the tropical regions of the Deccan Peninsula, in Bengal, at Patna and Dacca.

The leaves are valued as an application to wounds and sores; they allay irritation and promote cicatrization. (Dymock.)

K. pinnata, Pers. See *Bryophyllum calycinum*, Salisb.

- 684 **Kalanchoe spathulata**, DC.

Syn.—*K. VARIANS*, Ham.

Vern.—*Taudra*, *rungré*, *haisa-ka-patta*, PB., HIND.

Found in tropical Himalaya from Bhutan to Kashmir, altitude 1,000 to 3,000 feet.

It is poisonous to goats, and the leaves &c., at Lahore, where it is grown in some native gardens, reckoned a specific for cholera. In Kangra, they are burned and applied to abscesses.

Kamala. See *Mallotus philippinensis*, Mull., EUPHORBIACEÆ.

Karyat or creyat. See *Andrographis paniculata*, Nees., ACANTHACEÆ.

Katira Gum. See *Cochlospermum Gossypium* DC., BIXINÆ.

Kino. See *Pterocarpus Marsupium*, Roxb., LEGUMINOSÆ.

Kino, Bengal. See *Butea frondosa*, Roxb., LEGUMINOSÆ.

Kousso. See *Brayera antelmintica*, DC., ROSACEÆ.

- 685 **Krameria triandra**, Ruiz et Pavon, POLYGALÆ.

KRAMERIA; RHATANY.

A native of Peru and Bolivia. The dried root is imported into India.

Rhatany is powerfully astringent and tonic also. It has been successfully employed in chronic diarrhoea, in passive or atonic haemorrhages, and locally in leucorrhœa, ophthalmia, &c. (Pharm. Ind.) The powder may be used as a dentifrice when mixed with prepared chalk or myrrh.

KYDIA.

Kydia calycina, Roxb., MALVACEAE.

Vern.—*Pola, pôla, pulipatha, potari, HIND.; Baranga, bhoti, C. P., Kûbindé, NEPAL; Patri, pandiki, pedda bunji, TEL.; Buruk, baska GARO; Dzabots, BURM.*

A small tree common in the forests of all parts of India and Burma, except the arid region.

"The bark is mucilaginous, and is used to clarify sugar." (Atkinson.)

686

LAC.

Lac.

MILK.

Vern.—*Dudh, HIND.; Dugha, SANS.; Labr, ARAB.; Shâ, PERS.*

The fresh lacteal secretion is a valuable nutritive and demulcent, useful as an article of diet, especially in some ulcerated conditions of the stomach. It is also useful as an antidote in corrosive and irritant poisoning. (Pharm. Ind.)

687

The principal milks used for patients are cow's and goat's. That of the ass is used for phthisical people. Curds are largely used by Sikhs and other natives as a hair wash. Hot milk is used in some eye-diseases. Camel's milk is largely used in Afghanistan and Arabia and Biluchistan (Dr. Emerson).

Lac.

Vern.—*Lakh, HIND.; Gôldâ, BENG.; Lakkhâ, SANS.*

A resinous incrustation, caused by the parasitic action of an insect, *Coccus Lacca*. The twigs so encrusted are known as *stick-lac*. When broken off from the twigs and washed in water, the resin breaks off into small particles, known as *seed-lac*; while the water used in the washings yields *lac-dye*. Seed-lac, when melted over a fire and squeezed through a long sack into troughs, spreads out into thin flakes known as *shell-lac*. If dropped into rounded masses, it is *button-lac*; if into larger pieces, it is *sheet-lac* or *piece-lac*.

A decoction of shell-lac is much used in the preparation of several medicinal oils. The Tamûl doctors prescribed lac in old and obstinate bowel complaints. (Ainslie.)

688

Lacmus. See *Rocella tinctoria, DC.*, LICHENES.

LACTUCA.

Lactuca remotiflora, DC., COMPOSITE.

689

Syn.—*BRACHYRAMPHUS SONCHIFOLIUS, DC.*, of Dals. and Gibbs, *Bomb. Fl. 1323*; *CACALIA SONCHIFOLIA, Wall.*

Vern.—*Undira-cha-kan* ("the rat's ear") MAHR.; in Goa it is known as *Taraxaco*, because used as a substitute for *Taraxacum*.

L. scariola, Linn., var. *sativa*, COMPOSITE.

690

The LETTUCE.

Vern.—*Kahu, HIND.*

Grown as a garden vegetable.

The soporific properties of the milky sap have been long known, and indeed, it is the mild, narcotic and soothing action which makes Lettuce co

universally appreciated as a salad. From the sap may be prepared a resinous, dry juice known commercially as *Lactucarium*. The common Lettuce yields only about 18 grains for each plant, but the scented and wild English Lettuce, *Lactuca virosa*, Linn., yields 56 grains. This juice is prepared just as the plant begins to flower. Dr. Duncan, nearly a century ago, showed that the juice might be used as a substitute for opium, having most of the properties of that drug without its binding effects. Smith, in his *Dictionary of Economic Plants*, mentions an instance in July 1879 where a man died from the effects of the narcotic through eating lettuce. Thus, it would seem that the strength of the narcotic varies considerably, and that the drug is not certain. Its action is not so reliable as opium, but it may be used as a mild hypnotic. Dose 2 to 10 grains of the dry juice. The officinal preparation is the Extract prepared from the fresh plant; a mild sedative, anodyne, purgative, diuretic, diaphoretic, antispasmodic, said to be useful in the treatment of the coughs in phthisis, bronchitis, asthma and pertussis. It has also been recommended for rheumatism and insanity with doubtful results. In native medical practice a decoction of the seeds is used as a demulcent. dose 3*ii* to 3*ss*.

691 *L. virosa*, Linn.

STRONG-SCENTED LETTUCE.

A native of Europe, imported into India.

The extract of the herb is officinal, being a mild sedative, anodyne and antispasmodic. It is useful in phthisis, bronchitis and asthma; also prescribed in rheumatism, spermatorrhoea, and dropsy.

LAGENARIA.

692 *Lagenaria vulgaris*, Serigne, CUCURBITACEÆ.

BOTTLE GOULD.

Vern.—*Lau*, BENG.; *Kaddu*, *lauki* (the dried fruit shell is called *tumba*), HIND.; *Soriai-kai*, TAM.; *Sorakaya*, TEL.

Gourd is largely cultivated in all parts of India.

The seeds of this plant yield an oil which is used as an application for head-ache. The flesh of the fruit is considered diuretic, refrigerant and antibilious. It is also sometimes made into a poultice; when fresh it is bitter and purgative, and is applied over the shaved head in delirium.

LAGERSTREMIA.

693 *-Lagerstroemia Flos-Reginæ*, Reit., LYTHRACEÆ.

Vern.—*Jorâ*, BENG.; *Ajhar*, ASS.; *Kaduli*, TAM.; *Pymma*, BURM.

A large, deciduous tree of East Bengal, Assam, Burma and West Coast, extending north to Rutnagiri.

The root is prescribed as an astringent.

LAGGERA.

694 *Laggera aurita*, Schultz-Bip., COMPOSITE.

Syn.—*BLUMEA AURITA*, DC.; *CONYZA AURITA*, Linn. f.

A common herbaceous weed in waste places throughout India, from the Punjab and Sind to Chittagong, Burma and South India.

Moodeen Shariff has, in his Supplement to the *Pharmacopœia Indica*, gone into a long discussion as to the correct scientific name of the *hakrond* (HIND.) or *kumafitus* (ARAB.). He describes the flowers as white and about the size of a large pea. This precludes it from being *Blumea aurita*, DC., which has pink flowers. The color of the capitula of this great natural order is a character of much greater importance than in any other order, and one is almost justified in saying that the white-flowered plant cannot be either a *Blumea* nor a *Laggera*. See *Blumea lacera*.

LALLEMANTIA.

Lallemantia Royleana, Benth., LABiate.

695

Syn.—*DRACOCEPHALUM ROYLEANUM*, Wall.

Vern.—*Gharei kashmūlā, tukhm-malanga*, HIND., PB.

Found wild in many places in the Salt Range and Trans-Indus to 5,000 feet.

Seeds of this plant are officinal, having cooling and sedative properties.

LAMINARIA.

Laminaria saccharina, Lam., ALGÆ.

696

Vern.—*Gilarpatr*, HIND.

A marine plant, consisting of long, ribbon-like pieces, brought from the northward, and often administered for goitre, a common Himalayan disease. It is also used in Sind for the cure of scrofulous affections, and syphilitic eruptions. (Murray; Stewart.)

LAMPRACHŒNIUM.

Lamprachœnium microcephalum, Benth., COMPOSITÆ.

697

Syn.—*DECANEURON MICROCEPHALUM*, Dals.

Vern.—*Brahma-dandi*, Bom.

A much-branched annual, smelling of chamomile, common in the Concan.

"Used medicinally as an aromatic bitter." (Dymock.)

Lard, See Adeps.

LATHYRUS.

Lathyrus sativus, Linn., LEGUMINOSÆ.

698

Vern.—*Teora*, BENG.; *Khesari*, HIND.

Largely cultivated on alluvial soils, spread through the Northern Provinces, ascending from the plains of Bengal to the temperate zone in Hazara, Kashmir, and Kumaun.

This plant is mentioned in the *Indian Pharmacopœia* to call the attention of the people to the fact that the continued use of its seeds as food induces paralysis of the lower extremities. But Stewart says that he has never heard of its ever producing paralysis in the Punjab.

Laudanum, See *Papaver Somniferum*, Linn., PAPAVERACEÆ.

LAVAN-
DULA.

LAUNSEA.

699 *Launsea pinnatifida*, Cass., COMPOSITE.

Syn.—*MICRORHYNCHUS SARMENTOSUS*, DC., *Prod.*, vii, 181; *PRENANTHES SARMENTOSA*, Willd.; *LACTUCA SARMENTOSA*, DC., in *Wight's Contrib.*
 Vern.—*Patkri*, BOM.; *Ban-kahu*, SIND; the juice in Sind is known as *Khee momra*. *Abrasao* of the GOANESE.

A common plant of the sandy coasts of India from Bengal to Ceylon Madras, Malabar; very plentiful at Kurrachee and Goa. Much used in Goa as a substitute for Taxacum.

The juice of the plant, mixed with oil prepared from *Pongamia glabra* seeds, is largely used as an external application in rheumatism. The juice is also used as a soporific for children. Dr. Dymock describes the first and the last of the above synonyms as distinct species. This seems to be an oversight.

Laurel. See *Daphne* and *Prunus*.

LAURUS.

Laurus Camphora, Linn. See *Cinnamomum Camphora*, Nees., LAURINÆ.

700 *L. nobilis*, Linn.

SWEET BAY.

Vern.—*Zafne*, *hubul-ghar*, ARAB.

Indigenous in Italy.
 The berry is officinal.

LAVANDULA.

701 *Lavandula stachas*, Linn., LABIATÆ.

Vern.—*Dharoo*, HIND.; *Oostakhoodus*, ARAB., BOM.

Birdwood mentions this plant amongst his drugs, but says nothing about its medicinal properties. Murray says that it may be used as an expectorant. Dymock, in his *Materia Medica*, describes it as resolvent, deobstruent and carminative. In native practice it is given in chest affections, and also to expel bilious and phlegmatic humours.

702 *Lavandula vera*, DC.

A native of South Europe and the Mediterranean shores, extending into Western Africa. Introduced into England, but now extensively cultivated for the spikes of flowers from which a volatile oil is distilled. This oil is pale yellow with grateful odour and bitter, aromatic taste. The characteristic properties of the plant have been developed to an enormous extent by English cultivation and soil. But they are not equally developed, for, indeed, there are only two districts that can be said to suit the plant: these are Mitcham in Surrey and Hitchin in Hertfordshire. There are over 50 acres annually under cultivation in the latter locality. The bushes are cultivated in rows 4 feet apart, the plants being 3 feet removed from each other. So planted an acre would contain about 3,547 bushes. When about four years old they yield the best otto, and are improved by keeping back the flowering. An acre should yield about 6 to 7 quarts of otto. Essence of lavender is best prepared by distilling a mixture of essential oil of lavender with rectified spirit, in the

proportions of 4 oz. of the former to 5 pints of the latter (60 over proof), with 1 pint rose water. This is the formula for the preparation of *Smyth and Nephew's Essence of Lavender (Pisces in Perfumery.)*

The cultivation of lavender does not appear to have been attempted in India, but it would seem that it would likely be found to do well upon the Himalayas.

In medicine Spirits of Lavender are largely used in hysteria, dose $\frac{1}{2}$ to 1 fluid drachm. Tincture of Lavender is carminative and antispasmodic, and is the colouring agent in Liquor ~~aromatica~~.

Lawsonia alba, Lam., LYTHRACEÆ.

Synt.—*L. INERMIS, Roxb.*

Vern.—*Henna, mhendi, HIND.; Henna, yorotuna, ARAB.; Henna, PERS.; Dan, BURM.*

Wild in Biluchistan, on the Coromandel coast, and perhaps in Central India; cultivated throughout India.

A decoction of the leaves is used in native medicine to purify the blood, and is astringent; applied externally in the cure of ulcers and other sores and skin diseases. Ainslie says the natives of South India make an extract from the flowering twigs, leaves, &c., much valued in the treatment of "lepra and other depraved habits of body."

A decoction of the leaves is used as an astringent gargle in relaxed sore throat. The fresh leaves are rubbed over the soles of the feet in the disease known as burning of the feet; sometimes a paste made with vinegar is used for the same purpose. *Henna* is used as an emollient poultice, and the flowers are considered refrigerant. The flowers are also used as a soporific, being for this purpose placed in a pillow. The oil and essence are rubbed over the body to keep the body cool. (*Dr. Emerson.*)

Lead.

704

Vern.—*Sisa, BENG.; Sisaka, SANS.*

Sulphate of lead (galena) is largely sold in the bazars under the name of *Surma*. See *Plumbum*.

Lebedouria hyacinthoides, Roth., See Scilla hyacinthoides, Linn., LILIACEÆ.

705

Leech, (Sanguisuga, various species).

706

Vern.—*Jonk, HIND.; Beng.; Adlak, ARAB.; Jok, solu, PERS.*

The Leech has been used from the remotest times for the purpose of removing blood in the cure of certain affections. The ancient Hindus seem to have used them for this purpose, and the Arabs adopted the practice. The leeches used in Bengal are chiefly caught in tanks in the neighbourhood of Baraset, by persons who collect them by allowing the leeches to catch hold of their limbs. They are gathered in May as the tanks begin to dry up. From the North-Western Provinces the best Indian leeches are obtained, and chiefly from Shekoabad. The Punjab leeches come from Patiala. There are many distinct species met with in India, but they have not been scientifically worked up or named. One soon gets accustomed, however, to at least three of these. In the pools or streams there are large, heavy, black ones, the least harmless of all, since they may be avoided. On the trees are long green ones which, dropping from the boughs, find their way down the back, and only make their presence known after they have sucked their full, through the cold sensation of their gorged and swollen bodies beneath the garments. On the paths swarm in myriads the most troublesome of all, the brown species;

LEUCAS.

with yellow band along each side. Every blade of grass, and every projecting pebble, has its leech which, while firmly grasping its projection or vantage point by its anal extremity, sways itself in every direction in search of the traveller's feet or those of his dumb animals. Once let this intruder catch and its action is certain : unperceived it will work its way through the minutest opening in the strongest of alpine boots, or find its way between the toes of the bare-footed coolie. Many cures have been recommended, but experience of months' marching through marshy and leechy ground has convinced me that long salmon fishing or wading boots are by a long way the traveller's best alpine protector. Swamps, tall, damp, rampant vegetation and leeches are at once put in defiance, while the thin India rubber upper proves no incumbrance and may be rolled down when not required. The coolies have a more convenient cure for leeches than the salt or tobacco juice recommended by most authors. In all the lower hills where leeches abound various species of *Bigonia* are found. The sap squeezed from a leaf-stalk at once kills the leech when dropped upon him. The Nagas out of revenge collect large quantities of leeches, and squeezing the *Bigonia* sap upon the seething mass take particular delight in watching their destruction. The sap when dropped upon the leech changes into a deep red colour.

Leeches boiled with honey are used as a local application for tonsilitis. Dried and rubbed with aloes are used locally for haemorrhoids. (Dr. Emerson.)

Leontodon taraxacum, Linn. See *Taraxacum officinale*, Wigg., COMPOSITE.

Leptopus cordifolius, Decne. See *Andrachne cordifolia*, Müll. Arg., EUPHORBIACEÆ.

Lepidium sativum, Linn., CRUCIFERÆ.
CRESS.

Vern.—*Hallim*, *chausaar*, HIND.; *Chandrasura*, SANS.; *Jayfir*, *kurf*, ARAB.; *Turrah-tishah*, PERS.; *Ali-verai*, TAM.; *Adit-yalu*, TEL.

Cultivated in gardens as a vegetable.

Sanskrit writers have described the seed as tonic and alterative, efficacious in hiccup, diarrhoea, and skin diseases. (U. C. Dutt.) It is also carminative and diuretic.

Lettuce. See under *Lactuca*.

LEUCAS.

707 **X Leucas aspera**, Spreng., LABIATE.

This plant is reported to be an antidote for snake-bites. The juice of the leaves is applied successfully in psora and other chronic affections.

708 **L. Cephalotes**, Spr.

Vern.—*Phumián*, *sisalids*, *maldoda*, *guldoda*, *chaitra*, PB.; *Tumba*, Bom.

Common in the western Punjab plains, and ascending to 4,000 feet in the hills.

The plant is officinal, being considered stimulant and diaphoretic.

Lichen rotundatus, Rott. See *Parmelia*.

Lignum colubrinum. See *Strychnos colubrina*, Linn., LOGANIACEÆ.

Ligusticum ajawain, Fleming. See *Carum copticum*, Benkh., UMBELLIFERÆ.

Lilium Wallichianum, Royle, LILIACEÆ.

Vern.—*Findora*, HIND.

The bulbs possess demulcent properties, and they are used in pectoral complaints.

Lime.

Lime is used internally in dyspepsia, and also as antacid. Also useful in enlargements of spleen. Applied externally as a caustic. See Calcium.

Lime. See *Citrus medica*, Linn., RUTACEÆ.

LIMNANTHEMUM.

Limnanthemum cristatum, Griseb., GENTIANACEÆ.

Vern.—*Kári, khair posh, gul jafari puruka*, HIND.

Common in the lakes of Kashmir.

The plant is said to increase the milk of the cows feeding on it.

LIMONIA.

Limonia acidissima, Linn., RUTACEÆ.

Vern.—*Beli*, HIND.; *Tor-elaga*, TEL.; *Kawat*, MAR.; *Thechaya-su*, BURM.

Found in dry hills in various parts of India, North-West Himalaya, in Simla and Kumaun, ascending to 4,000 feet; Monghyr hills in Behar; Assam; Western Peninsula, from the Bombay Ghâts and Coromandel southward.

The root is purgative, sudorific and used in colic; the leaves in epilepsy and the dried fruit as a tonic and disinfectant. (Atkinson.)

LINARIA.

Linaria cirrhosa, Willd., SCROPHULARINEÆ.

Found in Sind, Egypt, Arabia, and the Deccan, and perhaps also in North India.

This plant forms a very useful remedy for diabetes.

L. ramosissima, Wall.

Indigenous to Sind.

This species also is highly valued as a remedy for diabetes.

LINUM.

Linum trigynum. Roxb. See *Reinwardtia trigyna*, Planch., LINÆ.

SEEDS.

- 713 *L. usitatissimum*, Linn.

LINSEED ; FLAX.

Vern.—*Tisi, masini, Beng.*; *Alsi, HIND.*; *Kattan, ARAB.*; *Zaghād, Kutan, PERS.*; *Akhi-virai, TAM.*; *Alasi, TEL.*

Linseed is cultivated in Bengal and North-West Provinces. It is one of the most important of the oil-seeds of India.

Medicinally, linseed is used for poultices. It is also taken internally in bronchial affections, diarrhoea, &c. Linseed oil is aperient, but rarely administered internally. It is chiefly used in the preparation of liniment for burns.

The seeds are used internally for gonorrhœa and irritation of the genito-urinary system. The flowers are considered a cardiac tonic.
(Dr. Emerson.)

LIPPIA.

- 714 *Lippia nodiflora*, Rich, VERBENACEÆ.

Vern.—*Bhui-okra, HIND.*; *Vashira, SANS.*; *Mokna, bikan, jalnim, jorakh mundi, PB.*

Commonly found in and near water all over the Punjab plains, ascending to 2,000 feet on the hills.

The plant is officinal, and considered cooling. The tender stalks and leaves are slightly bitter, and prescribed in the form of an infusion to children suffering from indigestion, and to women after delivery.

LIQUIDAMBAR.

Liquidambar Altingia, Blume. See *Altingia excelsa*, *Noronha*, HAMAMELIDÆ.

- 715 *L. orientale*, Miller.

A tree of Asia Minor.

Yields the fragrant resin "Storax," used in medicine.

"Storax is considered by the Mahomedans to be tonic, resolvent, suppurative, and astringent; it is prescribed as a pectoral, and is sought to strengthen all the viscera; applied externally it is supposed to have a similar action upon the parts with which it comes into contact. It is a favourite application to swellings, and in Bombay is much used in orchitis, the inflamed part being smeared with it and then bound up tight in tobacco leaves." (Dymock.)

- 716 Liquorice. See *Glycyrrhiza glabra*, Linn., LEGUMINOSÆ.

Lithium.

Litsmus. See *Roccella tinctoria*, DC., LICHENES.

LOBELIA.

- 717 *Lobelia inflata*, Linn., LOBELIACEÆ.

LOBELIA.

A native of North America, from Canada to Carolina.

The flowering herb is officinal, being emetic, sedative, diaphoretic, expectorant, and antispasmodic, and in large doses an acro-narcotic poison. It is useful in spasmodic asthma, chronic bronchitis, and pneumonia (Pharm. Ind.).

Medicines.

Lobelia nicotinaefolia, Heyne.

Vern.—*Dova-nal, bob-nal, davul, MAR.*

Met with in Malabar; on the Ghâts, altitude 3,000 to 7,000 feet, from Bombay to Travancore, and in Ceylon.

"An infusion of the leaves is used by the natives as an antispasmodic. The dry herb, when handled, is extremely acid, the dust irritating the throat and nostrils like tobacco." (*Pharm. Ind.; Dymock.*)

LODOICEA.

Lodoicea Sechellarum, Labill., PALMÆ.

The SEA COCOANUT; The DOUBLE COCOANUT.

Vern.—*Darya-ka-nriyal, HIND.; Ubdi narikaylum, SANS.; Narjilo-bahri, ARAB.; Nargile-vahri, PERS.; Darya-ka-nari, DEC.; Kad-del-taynga, TAM.; Samootrapoo-tenkayu, TEL.*

Indigenous in Maldives and Laccadives. A tall jointed palm, the fruit taking several years to reach maturity, and becoming often 40 to 50 lbs. in weight.

Birdwood mentions the nut of this plant amongst his drugs, but is silent about its medicinal properties. Long before the home of this tree was discovered the fruit was known in India, having been washed to our shores by the monsoons. Naturally, strange stories became current regarding this monster double cocoanut. The hard, black shell forms the fakir's drinking and begging cup.

The nut is used in malarial fevers. The ground nuts mixed with milk are used in opium-poisoning (*Dr. Emerson.*)

Logwood. See *Hæmatoxylon campechianum*, Linn., LEGUMINOSÆ.

LONICERA.

Lonicera glauca, H.f. & T., CAPRIFOLIACEÆ.

Vern.—*Shingtik, shea, shewa, PB., HIND.*

Found in temperate North-Western Himalaya and Western Tibet, 12,000 to 16,000 feet; Nubra, Zanskar, Piti, Tilail, in Kashmir, Garwahl and Kumaun.

The seeds of the plant are prescribed for horses in colic.

Loxa Bark. See *Cinchona*.

LUFFA.

Luffa acutangula, Roxb., CUCURBITACEÆ.

GOURD.

Vern.—*Yinga, BENG.; Tarsi, HIND.; Pihunkai, TAM.; Birakai, TEL.; Tha-buat-nha-wai, BURM.*

Cultivated in North-West India, Sikkim, Assam, plains of East Bengal and Ceylon.

The seeds possess purgative and emetic properties.

The pounded leaves are used locally in splenitis, haemorrhoids, and leprosy. (*Dr Emerson.*)

Economic Products of India.

~~LYCOPE-~~

DON.

var. *assam*, *Roxb.*

722

Vern.—*Karwi turai*, HIND.; *Ghos-hâ-lâtâ*, BENG.; *Ran-turai*, BOM.; *Sendu-beer-kai*, TEL.

This plant is met with all over India, especially on the western side.

The plant is used medicinally by the Hindus to cure headache, and in the form of infusion as an emetic and purgative. It also possesses cathartic and emetic properties, and also described as a bitter tonic and diuretic, and recommended in enlargements of the spleen. The leaves are employed as an external application to sores in cattle. (*Dymock: Pharm. Ind.*)

723 *L. aegyptiaca*, Mill.

Syf.—L. PENTANDRA, Ron.

Vern.—*Dhundul*, BENG.; *Ghia-tarui*, HIND.

Cultivated as a vegetable.

The seeds are used as a cooling medicine.

724 *L. echinata*, Roxb.

Vern.—*Kukar-wel*, BOM.; *Wa-upla-bij*, GUZ.

Found in Guzerat, Sind, Purnea, and Dacca.

The plant has acquired a reputation among the Hindus on account of the bitter properties of the fruit. It forms an ingredient in some of their compound decoctions.

LUPINUS.

725 *Lupinus albus*, Linn., LEGUMINOSÆ.

Vern.—*Zurmish*, *tirmus*, HIND.

"Said to be brought from Egypt, and used as a carminative. Useful in leprosy and internal heat." (*Baden-Powell.*)

Lupulus. See *Humulus Lupulus*, Linn., URTICACEÆ.

LYCIUM.

726 *Lycium europœum*, Linn., SOLANACEÆ.

Vern.—*Kangâ*, *kungâ*, *ganger*, *mrâl*, *chirchitta*, PB., HIND.

A small, thorny shrub, found in the drier tracts of the Punjab Plains from Delhi west to the Sulaiman Range.

The berries are used medicinally as aphrodisiac.

LYCOPERDON.

727 *Lycoperdon gemmatum*, Batsch., FUNGI.

PUFFBALL.

Vern.—*Kunba*, PB.

Found in the Punjab Himalaya up to 11,500 feet, and in Ladak at 13,000 feet.

The black spores of this fungus are officinal at Lahore, and are considered warm.

LYCOPODIUM.

Lycopodium clavatum. Linn., LYCOPODIACEÆ.

CLUB-MOSS.

"The part of the plant employed in pharmacy is the minute spores, which, as a yellow powder, are shaken out of the kidney-shaped capsules or sporangia, growing on the inner side of the bracts covering the fruit-spike."

"Lycopodium is not now regarded as possessing any medicinal virtues, and is only used externally for dusting excoriated surfaces, and for placing in pill boxes to prevent the mutual adhesion of pills. It is also employed by the pyrotechnist." (*Pharmacographia*.)

"Experiments made with the tincture prepared of this plant show that its action is chiefly directed to the urinary organs and the liver. It relieves the spasmodic retention of urine in children and catarrh of the bladder in adults. According to the reports of many physicians, the drug is very useful in dyspepsia, in constipation with flatulence and in *enteritis* in children. In hepatic congestions, Lycopodium has been pronounced more efficacious than any other medicine. In chronic passive bronchitis, in chronic pneumonia, in carotid aneurism, it has been found to produce striking beneficial results. Its action upon boils, carbuncles and papular eruptions is highly interesting." (*Christy's New Commercial Plants and Drugs*.)

LYCOPUS.

Lycopus europaeus, Linn., LABIATEÆ.

GIPSY WORT.

Vern.—*Gandamgandhi, jalmim*, HIND.

Found wild in Trans-Indus and Kashmir to 7,000 feet.

Part of this plant is officinal as a cooling drug.

LYTTA.

Lytta Assamensis, COLEOPTERA,**L. giga.****L. violacea.**

The above three species of **Lytta** are met with in many parts of India. They are known as blistering agents.

Mace. See *Myristica moschata*, Linn. f., MYRISTICÆ.

MACROTOMIA.

Macrotomia Benthami, DC., BORAGINEÆ.

Vern.—

Found at 10,000 to 12,000 feet on the Pîr Punjâl and elsewhere, and on the western Himalaya, from Kumaun to Kashmir.

The plant is considered useful in diseases of the tongue and throat.

734 *M. perennis*, Boiss.

The bruised roots of this plant are applied to eruptions, and, along with *Oncosma echinoides* and one or two other roots, constitutes the *Ruttans-jot* of the Punjab and the North-West Himalayas. (See *Geranium nepalense*.)

Madder, Indian. See *Rubia cordifolia*, Linn., RUBIACEAE.

735 *Magnesia*.

= Male Fern. See *Nephrodium Filix-mas*, Rich., FILICES.

MALLOTUS.

736 / *Mallotus philippinenis*, Mull., EUPHORBIACEAE.

THE KAMALA OR KAMELA.

Syn.—*ROTTLERA TINTORIA*, Roxb.; *CROTON PHILIPPINENSIS*, Lam.; *ECHINUS PHILIPPINENSIS*, Bail.

Vern.—*Kamélé, kamúd*, HIND.; *Punag, tung, kishur, kamalguri*, BENG.; *Kamélá, kamál*, PE.; *Rohne*, OUDH; *Paroa*, LEPCHA; *Gangai*, ASS.; *Kampilla*, BOM.; *Kaplí*, kapila, *kameld-mávú*, TAM.; *Kapila-pod*, TEL.; *Quinbil*, ARAB.; *Kanbólá*, PERS.; *Kapila*, SANS.; *Tan-theedin*, BURM.

A small tree of the Sub-Himalayan tract from the Indus eastward to Bengal, ascending to 4,000 to 5,000 feet in altitude, Central and South India, Burma and the Andaman Islands.

The powder prepared from the tricoccous fruit is used as an anthelmintic, vermifuge and purgative medicine. It is also said to possess cathartic properties.

Recently it has been discovered that the African Waras powder is not, as was formerly supposed, identical with the Indian *Kamélá*, but is in fact the glandular hairs from the pods of *Flemingia congesta*, a common wild plant in India and Africa. A careful perusal of the account given by the learned authors of the *Pharmacographia* forces upon one the conviction that two plants have been combined in their account of the *Kamala*. In 1216 Abul Abbas Ahmad Annabati wrote of the Waras that it came from Yemen. About the same period Kazini describes it as *sown* in Yemen, and states that it resembles Sesame. He certainly could not have compared the tree *Kamélá* to the herbaceous plant—Sesame, which is annually sown as an oil-seed crop in many parts of Africa, in fact in all tropical countries. But the plant to which the Waras has now been referred is a small herbaceous annual which might easily enough be compared to Sesame. The authors of the *Pharmacographia* have laid great stress upon the fact that the African powder is darker, purple coloured, and composed of larger glands or grains than the Indian *Kamélá*. They seem to have anticipated the discovery which the Kew Report, 1882, p. 50, states was made by Captain Hunter, Assistant Resident at Aden. The specimens of the plant sent by him to Kew were collected on Jebel Dhubarah, altitude 6,000 feet and 60 miles north of Aden. *Flemingia congesta* is a common Indian plant, but neither its dye nor its medicinal virtues appear to be known to the natives of India. The reputed value of the *Kamélá* powder as an anthelmintic and vermifuge are almost too well known in India to require to be more than mentioned, but we must settle the question which seems now forced upon us. Were the properties attributed to the *Kamélá* known prior to the importation of the Waras, or have we, identifying the African Waras with our Indian *Kamélá*, given the properties of the former to the latter

plant? In other words, it is necessary to discover whether it is the imported Waras or the Indian *Kandla* that is medicinal. They both yield valuable dyes.

Gamble says the powdered bark of *Cascaria tomentosa*, *Roxb.*, is used as an adulterant for the Kamaula powder.

MALVA.

Malva parviflora, Linn., MALVACEÆ.

Vern.—*Narr, panirak, supra, sonchol, gopt sag*, PB., HIND.

Found in the North-West Himalaya, altitude 1,000 to 2,000 feet, Upper Bengal, Sindh and the Punjab.

The seeds are used as a demulcent in coughs and ulcers in the bladder. The root is used by women to cleanse their hair.

M. rotundifolia, Linn.

Vern.—*Sonchala, khubasi*, HIND.

Found in the North-West Provinces, Kumaun and Sind.

The seeds possess demulcent properties; they are prescribed in bronchitis, cough, inflammation of the bladder, and haemorrhoids; the seeds are also externally applied in skin diseases.

M. silvestris, Linn.

Vern.—*Kunjji, tilchuni, vilayati-kangai-ká-per*, HIND.; *Khobdoi*, PERS.; *Vilayati kangai-kú-jhár*, DEC.; *Khababji*, SIND.

Met with in the western temperate Himalaya, from Kumaun, altitude 2,500 feet, to Kashmir and the Punjab.

The plant is highly valued as a demulcent, and prescribed in pulmonary affections. It is generally used as a substitute for the Marsh Mallow of Europe.

MANDRAGORA.

Mandragora microcarpa, Bert., SOLANACEÆ.

THE OFFICINAL MANDRAKE.

Vern.—*Luckmuna, luckmunie*, HIND.; *Yebrij, Beng.*; *Caat-juti*, TAM.; *Ustrung, Arab.*; *Yabroos, Pers.*

Indigenous in South Europe and Asia Minor.

This plant has been mentioned by Birdwood among his drugs, but without giving any information about its medicinal virtues. The *Pharmacographia* says that the root of this plant, as also of *M. officinarum*, *M. vernalis*, are very nearly allied, in appearance and structure, to that of *Atropa Belladonna*, *L.*. *M. caulescens*, *Clarke*, is closely allied to *M. officinarum*, *Linn.*, and is a weed of Alpine Sikkim.

Dr. Dymock says the root is worn as a charm.

MANGIFERA.

Mangifera indica, Linn., ANACARDIACEÆ.

MANGO.

Vern.—*Amb, am*, HIND.; *Am, Beng.*; *Amra, Sans.*; *Shajratul-anbah, Arab.*; *Darakte-anbah, darakhte-nagheek*, PERS.; *Maa, mangas, Tam.*; *Am-ká-jhár, DEC.*; *Mékanamu, mavi*, TEL.; *Ambatu jhada, Guz.*; *Siya-pin, tiyo-pin*, BURM.; *Amba, ambosi, ambapuri*, BOM.

A densely-branched tree, wild in the Western Ghâts, and apparently grown wild in the Chutia Nagpur and the Naga hills; cultivated all over India for its valuable fruit.

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Economic Products of India.

The ripe fruit is considered laxative, and therefore much prized by persons labouring under habitual constipation. The bark and kernel are known as astringent and used in haemorrhages, diarrhoea and other discharges. The decoction of the kernel, either alone or in combination with *bela* and ginger, is generally prescribed in diarrhoea. The juice of the kernel, if snuffed, can stop nasal bleeding. The kernel is also described in the Indian Pharmacopoeia as an anthelmintic, and containing a large quantity of gallic acid, highly useful in bleeding piles and menorrhagia. The unripe fruit is said to be useful in ophthalmia and eruptions, and the seeds in asthma. The rind of the fruit is astringent, and also a stimulant tonic in debility of stomach. "The smoke of the burning leaves is supposed to have a curative effect in some affections of the throat. According to the author of the *Makhsan* the Hindus make a confection of the unripe fruit mixed with sugar, which, in times of plague or cholera, they take internally and rub all over the body; it is also stated in the same work that the midribs of the leaves calcined are used to remove warts on the eyelids. Ainslie says that the gum-resin, mixed with lime-juice or oil, is used in scabies and cutaneous affections. The juice of the ripe fruits dried in the sun, so as to form thin cakes (*Amras* or *Amaut*, HIND. (*ambapuri*, BOM.); *Amsatta*, BENG.), is used as a relish and antiscorbutic." (Dymock.)

A native article of diet, known as *Amchur* (*ambosi*, BOM.), is made of green mangoes which have been skinned, their stones removed and the pulp cut up into pieces and dried in the sun, is recommended by the Inspector General of Prisons, North-Western Provinces and Oudh, as a good and cheap antiscorbutic for native troops. (Dr. Emerson.)

742

Mangifera sylvatica, Roxb.

Vern.—*Bun am*, Ass.; *Lakshmi am*, SILHET; *Chuchi am*, NEPAL; *Katur, Lepcha*; *Hsing neng thayet*, BURM.

A large, evergreen tree, with a thick, grey bark, found in Nepal, East Bengal and the Andamans; rare in Burma.

Gamble says that the fruit is used medicinally.

Mango-ginger. See *Curcuma Amada*, Roxb., SCITAMINAE.

Mangosteen. See *Garcinia Mangostana*, Linn., GUTTIFERAE.

Manna. See *Fraxinus*.

Margosa Tree. See *Melia Azadirachta*, Linn., MELIACEAE.

Marking Nut Tree. See *Semicarpus Anacardium*, Linn., ANACARDIACEAE.

MARSDENIA.

Marsdenia Roylei, Wight, ASCLEPIADEAE.

Vern.—*Pathor*, CHENAB; *Tar, veri*, SALT RANGE; *Kurang*, SIMLA; *Murkula*, HIND.

A small climber of the North-West Himalaya.

○ The unripe fruit is powdered and given as a cooling medicine.

MARTYNIA.**Martynia diandra, *Gloxin.*, SESAMEÆ.**Vern.—*Bichu*, *hathgori*, *Pb.*; *Vinchu*, *BOM.*

This plant is found in gardens in the Punjab. It has been naturalised in several places near the Siwalik tract of Rohilkund.

The fruit is officinal in the Punjab bazars. It has become quite naturalised in Bombay, and is sold in the shops as an antidote to scorpion stings, hence the name *Bichu*, *HIND.*, and *Vinchu*, *MAHR.* (*Dr. Dymock.*)

Marrubium Malcomianum, *Dals.* See *Micromeria capitellata*, *Benth.*, IABIAE.

Mastich or Mastache. See *Pistacia Lentiscus*, *Linn.*, ANACARDIACE.

MATHIOLA.**Mathiola incana, *R. Br.*, CRUCIFERÆ.**Vern.—*Todri safed*, *Pb.*, *SIND.*

Grown for its seeds, which are said to be aphrodisiac.

The seeds are of three kinds, yellow, red and white; used in infusion in cancer; are expectorant; mixed with wine given as an antidote to poisonous bites. (*Dr. Emerson.*)

MATRICARIA.**Matricaria Chamomilla, *Linn.*, COMPOSITÆ.**

WILD CHAMOMILE.

Vern.—*Babun-phal*, *BENG.*, *HIND.*; *Babineh*, *PERS.*; *Chamaindu-pu*, *TAM.*

A native of Europe and Persia, imported into India from the latter country. In India it is found in the Upper Gangetic Plain and the Punjab.

The dried flower-heads are officinal, and are said to be stimulant, tonic and carminative. They are used in constitutional debility, hysteria, dyspepsia and intermittent fevers. The warm and strong infusion of the flowers is emetic, while a weak infusion acts as a tonic and febrifuge. In flatulence and colic, chamomile oil is the most effectual of all remedies. The Indian Pharmacopœia says the *babunaka phul* forms a perfect substitute for the European Chamomile (See *Anthemis nobilis*.) "In Persian works the flowers are described as stimulant, attenuant and discutient. There is a popular opinion among the Persians that the odour of the flowers induces sleep and drives away noxious insects; they also say that the chamomile tea applied to the genitals has a powerfully stimulating effect." (*Dymock.*)

Meadow saffron. See *Colchicum autumnale*, *Linn.*, LILIACEÆ.

MECONOPSIS.**Meconopsis aculeata, *Royle*, PAPAVERACEÆ.**Vern.—*Guddi kám*, *gádia*, *Pb.*

Found in the Western Himalaya from Kashmir to Kumaun, altitude 11,000 to 15,000 feet.

MECONOPSIS.

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The root is officinal in Kashmir as a narcotic, and is in Chumba, regarded as poisonous. O'Shaughnessy mentions having given a drachm of an alcoholic extract to a dog which produced no perceptible effect.

748 Meconopsis Nepalensis, DC.

Is reported to be used in the same manner as the preceding.

749 Mel.

HONEY.

Vern.—*Shahad, madh, HIND.; Madhu, BENG.; Aasi, ARAB.; Shahad, angabin, PERS.; Shahad, DEC., TAM.; Teli, TEL.*

Saccharine substance collected by the bee, is officinal in the Pharmacopœia India. It is emollient and slightly laxative, used chiefly to impart a pleasant flavour to cough mixtures, gargles, &c.

MELALEUCA.

750 Melaleuca Leucadendron, Linn., MYRTACEÆ.

CAJEPUT.

Syn.—*M. CAJUPUTI, Roxb.; M. MINOR, Sm.*

Vern.—*Káyáputi, BOM.*

An evergreen tree of Tenasserim.

"The leaves give the Cajuput oil of commerce, which is largely exported from the Malay Archipelago, and is used in medicine as a stimulant and diaphoretic." (Gamble.) It is also antispasmodic, and when externally applied acts as rubefacient. It is also regarded as a powerful sudorific.

MELANORRHœA.

751 Melanorrhœa usitata, Wall., ANACARDIACEÆ.

THE VARNISH TREE OF BURMA.

Syn.—*M. USITATISSIMA, Wall, as in Pharm. Ind.*

Vern.—*Khen, MANIPUR; Thitseeben, tisi or sissi, BURM.; Soothan, TEL.; Kiahong, KAREN.*

A deciduous tree with dark grey bark; a native of the forests of Manipur and Burma.

The thick, greyish fluid which is found in every part of the plant has been used in medicine as an anthelmintic with great success. If the juice be too much handled, it causes erysipelas-like swellings in certain constitutions, which are cured by the application of an infusion of teak-wood.

MELIA.

752 Melia Azadirachta, Linn., MELIACEÆ.

THE NIM TREE; THE MARGOSA TREE.

Syn.—*AZADIRACHTA INDICA, Juss.*

Vern.—*Nim, BENG., HIND., BOM.; Limba, nimba, MAHR.; Nimba, SANS.; Vepum-mavam, TAM.; Yapa, yopa, TEL.; Bakáyan, SIND; Thimban-ta-ma-kha, BURM.*

A large tree planted and self-sown throughout the greater part of India and Burma.

MELI-
TUS.

The fruit is used medicinally as an antiseptic, purgative, emollient and anthelmintic. The bark is known as astrigent, tonic and antiperiodic, and used in intermittent and other fevers, in constitutional weakness, and during the convalescent state after fever and other diseases. The leaves are stimulant and applied to ulcers and skin diseases of long standing. They are also used in the form of poultices to disperse glandular tumours, and in the form of a pulp in cases of pustular eruptions and small-pox. The oil of the seeds effects suppuration of scrofular glands, and is given in leprosy. The gum is said to have stimulant properties. The air passing through Nim trees is thought to be highly beneficial to health, and hence the practice among the natives of planting Nim trees near their dwelling-houses. Many Europeans even believe in this, especially in the North-Western Provinces and Oudh, and frequently cite villages surrounded with Nim trees as proverbially free from fever while adjoining villages have suffered severely.

The small branches are used as tooth-brushes by the natives (*Dr. Emerson.*) The young trees tapped yield a saccharine sap or toddy capable of undergoing vinous fermentation. When carefully prepared this wine is an excellent stomachic, being taken in doses of about one ounce. (*Rai Kani Lall Dé, Bahadur.*)

Melia Azedarach, Linn.

753

THE PERSIAN LILAC, BASTARD CEDAR OR BEAD TREE.

Vern.—*Bakáyan, maha-nimb, HIND.; Maha-ním, BENG.; Parvata-nimba, SANS.; Habúl-bah, ARAB.; Gouri-nim, DEC.; Malai vémbu, malai vepbam, TAM.; Konda-vépa, turaka-vépa, TEL.; Bettada-bévina, KAN.; Dongra-cha límbácha jhada, MAR.; Maha-nimba, CEYLON; Simbo-táma-bin, BURM.*

A tree with smooth, grey bark, commonly cultivated throughout India, and believed to be indigenous in the outer Himalaya, Siwalik tract and the hills of Biluchistan.

The bark is extremely bitter; and is employed as an anthelmintic in the form of decoction. In large doses it exercises narcotic influence on the constitution. Fresh berries and leaves are supposed poisonous. "The flowers and leaves are applied as a poultice to relieve nervous head-aches. The juice of the leaves administered internally is said to be anthelmintic, antilithic, diuretic and emmenagogue, and is thought to resolve cold swellings, and expel the humours which give rise to them. The bark and leaves are used internally and externally in leprosy and scrofula. A poultice of the flowers is said to kill lice and cure eruptions of the scalp."

The gum is used in spleen affections. (*Dr. Emerson.*)

MELILOTUS.

Melilotus alba, Lamk., LEGUMINOSE.

754

Syn.—*M. LEUCANTHA, Koch.*

Vern.—*Chite singki, HIND.*

Found in several parts of the Punjab plains, and to 8,500 feet or more in the Himalaya.

The plant, if browsed by cattle, produces swelling of the belly.

MENTHA.

- 755** *Melilotus officinalis*, Willd.
 Vern.—*Aspukh*, HIND. ; *Zireer*, PERS.
 A European species, cultivated in India. Met with in Nubra and Ladak.
 Said to possess styptic properties.

- 756** *M. parviflora*, Desf.
 Vern.—*Singes*, PB. ; *Zir*, SIND.
 A native of Western Peninsula, Bengal and North-Western Provinces.
 The seeds are said to be useful in bowel complaints and infantile diarrhoea, given as a gruel. (*Murray.*)

MELISSA.

- 757** *Melissa officinalis*, Linn., LABIATE.
 Vern.—*Badrunj boyo*, PERS.
 Used as stomachic.

MELOE.

- 758** *Meloe trianthema*, COLEOPTERA.
 A blistering fly found in Central and Upper India, referred to by the *Pharm. India.*

MEMECYLON.

- 759** *Memecylon edule*, Roxb., MELASTROMACEÆ.
 THE IRON WOOD TREE.
 Syn.—*M. TINCTORIUM*, Koen.
 Vern.—*Ali-chedu*, TEL. ; *Anjana*, *kurpa*, BOM.
 An exceedingly common plant, met with in the Western Peninsula, Ceylon, Tenasserim and the Andaman Islands.
 The leaves are used in the form of infusion as anti-inflammatory.

MENTHA.

- 760** *Mentha arvensis*, Linn., LABIATE.
 THE MARSH MINT.

Syn.—*M. SATIVA*, Linn.
 Vern.—*Pudiyah*, BENG., HIND., DEC. ; *Naanaul-hind*, *Naanaas-hindi*, *habaqul-hind*, ARAB. ; *Pedina*, PERS. ; *Pudind*, *I-ech-chak-kirai*, TAM. ; *Pudint*, *Tga-engili-kura*, TEL. ; *Putiyina*, MAL. ; *Pudina*, GUZ. ; *Bhedina*, BURM.

Cultivated in gardens. Found wild in Kashmir.
 The dried plant is a refrigerant, stomachic, diuretic and stimulant medicine.

Used in jaundice. The dried plant powdered is used as a dentifrice. The scent of the fresh fruit is said to be useful to relieve fainting. (*Dr. Emerson.*)

Frequently given to stop vomiting; a chutney prepared from the fresh herb is in use all over Bengal (*Rai Kani: Lall Dê, Bahadur.*)

Mentha incana, Wild.

Vern.—*Baburi, vien, yára, píðna, kúshpa, koshá*, HIND.

Common in the Trans-Indus plains. Occasionally cultivated in gardens.

The leaves are officinal as astringent. *Pudinah* of Bombay gardens has exactly the odour of peppermint. (*Dymock*.)

M. piperita, Linn.

PEPPERMINT.

The Oil of Peppermint is a valuable stimulant, carminative, stomachic and antispasmodic. It is used in flatulence, nausea, and spasmodic affections of the bowels. It has been recommended in the treatment of puerperal fever instead of oil of turpentine, on account of the latter having a tendency to cause nausea. In the Indian Pharmacopœia two preparations of this oil are given, one being Peppermint Water, and the other Spirits of Peppermint.

M. Pulegium, Linn.

Said to be a good expectorant.

M. viridis, Linn.

SPEARMINT.

Vern.—*Pahari pudina*, HIND.; *Nagbbó, shah-sufiam*, PERS.

Cultivated in gardens in the Punjab.

Medicinal properties and uses of the oil obtained by distillation from the fresh herb are similar to those of Peppermint, but it is only less powerful in its action.

Seeds are mucilaginous. Leaves given in fever and bronchitis. Decoction used as lotion for aphthæ. (*Dr. Emerson*.)

Mercury. See *Hydrargyrum*.

MERIANDRA.

Meriandra bengalensis, Benth., LABIATE.

Syn.—*SALVIA BENGALENSIS*, Kon; Roxb. Br. Ind. Fl. 1451.

Vern.—*Kafur-ka-patta*; *Sesti*, BOM.

A herbaceous plant of Bengal.

The camphoraceous bitter plant possessing the properties of Sage (*Salvia officinalis*). Leaves are much used in native practice, an infusion being an useful application to aphthæ and sore throats according to Mr. Rama Churn Bose, who also notices its power to diminish or arrest the secretion of milk. (*Pharm. Ind.*)

M. strobilifera, Benth.

Has the same properties as the preceding.

MESUA.

761

Mesua ferrea, Linn., GUTTIFERA.

Vern.—*Nagesar*, HIND., BENG.; *Nagakesara*, SANS.; *Nangal*, TAM.; *Ganjal*, BURM.; *Nahor*, ASS.; *Nágchampa*, MAHR.

A middle-sized tree, met with in the mountains of Eastern Bengal, the Eastern and Western Peninsulas and the Andaman Islands.

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MILK.

The dried fragrant flowers constitute the *Nagesar* or *Nage-kesar* of the bazars. They are mild, stimulant, astringent and stomachic, useful in thirst, stomach irritation and excessive perspiration. A paste made of the flowers with butter and sugar is used to stop bleeding from piles. The bark is a mild astringent and aromatic. Dr. Dymock says that the *Nag-kesar* of Bombay is the flowers of *Ochnocarpus longifolius* (which see.)

An attar is prepared from the flowers. The kernels yield by expression a fixed oil known as *Nahur* oil, useful in the treatment of itch (*Rai Kani Lall Dé, Bahadur*).

Methonica superba, Hern. See *Gloriosa superba*, Linn., LILIACEÆ.

METROXYLON.

Metroxylon Sagu, Rottlb., PALME.

THE SAGO TREE.

Vern.—*Sago, sābuddnāh*, HIND., BOM.

Native of Moluccas, Sumatra, and Borneo. The granulated sago is prepared from the pith of this palm and imported into India.

Used as diet for invalids.

Mezereum or *Mezereon*. See *Daphne Mezereum*, Linn., THYME-LEACEÆ.

768 Mica or Talc.

MICHELIA.

769 *Michelia Champaca*, Linn., MAGNOLIACEÆ.

Vern.—*Champá*, HIND.; *Titsappa*, ASS.; *Champa, champaka*, BENG.; *Shimbu, shampangi, sempangam*, TAM.; *Sampangi, champakamu, kanchanamu, chāmpyamu*, TEL.; *Sappu*, CINGH.; *Tsaga*, BURM.; *Pica-lachapá*, BOM.

A large, handsome tree, with yellow, sweetly-scented flowers, cultivated throughout India, wild in Bengal, Nepal and Assam.

The bitter, aromatic bark of this plant has been used in the treatment of low intermittent fevers with success.

It is an excellent substitute for guiacum (*Rai Kani Lall Dé, Bahadur*).

MICROMERIA.

770 *Micromeria capitellata*, Benth., LABIATE.

Syn.—*MARRUBIUM MALCOLMIANUM*, Dalg.

A small plant inhabiting the Nilgiris and the Mahabaleshwar mountains.

Mr. Dalzell first brought this plant to notice under the name *Marrubium Malcolmiannum*, and remarked that it is entitled to be called East Indian Peppermint, being possessed of the aromatic and carminative properties of *Mentha piperita*. (*Pharm. Ind.*)

Has all the properties of peppermint.

Milk. See Lac.

MIMOSA.

Mimosa pudica, Linn., LEGUMINOSÆ.

771

THE SENSITIVE PLANT.

Vern.—*Lajwanti*, KUMAUN; *Lajuk*, BENG.; *Lajdli*, MAHR.

Naturalised over the greater part of tropical and sub-tropical India, where it grows to a small shrub, and is eradicated with trouble.

The plant is used as a cold medicine. The leaves are prescribed in piles and fistula.

M. rubicaulis, Lam.

772

• Vern.—*Rdl.*, *riaub*, *didriâr*, *arlî*, *allâ*, *kikkri*, PB.; *Hajeru*, SIND; *Agla-agl*, *kingli*, *kacheyta*, HIND.; *Aradi*, NEPAL.; *Sibris*, LEPCHA; *Chilatti*, BHIL.

A large, straggling, prickly shrub, found throughout the greater part of India, ascending to 4,000 feet in Kumaun and Sikkim.

In Chamba, the bruised leaves are applied to burns, and the fruit is also officinal.

MIMUSOPS.

Mimusops Elengi, Linn., SAPOTACEÆ.

773

Vern.—*Bakul*, BENG.; *Môlsari*, HIND.; *Ghôlsari*, *bhôlsari*, DEC.; *Mogadam*, TAM.; *Pogada-mânu*, TEL.; *Elangi*, MAL.; *Bakuli*, *ovali*, BOM.; *Khaya*, BURM.

A large, evergreen tree, much cultivated; said to be wild in the Western Ghâts, Burma, Ceylon and the Andaman Islands.

The bark of this plant is an astringent tonic. Decoction of the bark forms a good gargle to promote salivation, and is also used as an astringent. Water distilled from the flowers is used as a stimulant medicine, and also as a perfume. (*Pharm. of India.*) The unripe fruit is astringent, and when chewed affords firmness to the teeth. The dried and powdered flowers is snuffed by persons labouring under the disease known in Bengal as *Ahwa*, which is generally accompanied by head-ache, strong fever and pain in the neck. It relieves the pain in the head by inducing copious discharges from the nose. (*Dymock.*)The bruised seeds are applied locally within the anus in cases of constipation of children. (*Rai Kani Lall Dê, Bahadur.*)**M. hexandra, Roxb.**

774

Vern.—*Râjddani*, SANS.; *Kshiri*, HIND.; *Khirkhejur*, BENG.; *Rajan*, *kerñi*, BOM.; *Palla*, TAM.

Found in the Deccan Peninsula, and Ceylon, extending north to Guzerat, Banda, and the Circars. Cultivated in North-West India.

The bark is used medicinally. It has been mentioned by Dymock as a medicinal plant possessing astringent properties.

M. Kauki, Linn.

775

Vern.—*K.* *Adoma*, GOA.

A tree occasionally planted as far west as Hoshiarpore, Multan, Lahore, and Eminabad, near Gujranwala.

The seeds made into powder are used in ophthalmia, and the root is officinal at Lahore.

Is refrigerant and tonic; used in bronchitis. The fruit is very sweet and pleasant. The milk of the tree is used in inflammation of ear and conjunctivitis, &c. (Dr. Emerson.)

MIRABILIS.

776 *Mirabilis Jalapa*, Linn., NYCTAGINÆ.

MARVEL OF PERU.

Vern.—*Guleabbás*, PERS.; *Gulabbás*, HIND.; PB.; *Guld-bash*, DEC.; *Pattardshu*, TAM.; *Bhadrakshi*, TEL.; *Anti-mantáram*, MAL.; *Chandramallige*, KAN.; *Gulábás*, BENG.; *Misu'bin*, BURM.

Cultivated or run wild over the greater part of India.

The root is a safe purgative, and the leaves are used as a poultice to promote suppuration in cases of abscess and boils.

MOLLUGO.

777 *Mollugo hirta*, Thunb., FICOIDÆ.

Syn.—*GLINU S LOTOIDES*, Linn.; *PHARNACEUM PENTAGONUM*, Roxb.

Vern.—The plant *Kotruk*, SIND.; *Poprang, gandie bootee*, PB.

Found in Sind and the Punjab and the Deccan.

The dried plant is prescribed by native practitioners in Sind for diarrhoea.

The Mollugos are bitter, and expel bile. (Dr. Dymock.)

MOMORDICA.

778 *Momordica Charantia*, Linn., CUCURBITACEÆ.

Syn.—*M. MURICATA*, DC.

Vern.—*Karela*, HIND.; *Karala*, BENG.; *Qisául-barri*, ARAB.; *Simá-hang*, PERS.; *Kíra-vella*, SANS.; *Kórala*, BOM.; *Pava-kai*, *pávakká-chedi*, TAM.; *Kákarakettu*, TEL.

Cultivated throughout India. There are two distinct varieties known in Bengali as *Karala* and *Uchhyā*.

The plant is used internally as a laxative, and as an ointment for sores. The fruit and leaves are anthelmintic : useful in piles, leprosy, jaundice and as a vermifuge. The root is considered astringent and useful in haemorrhoids. The fruit is also tonic, stomachic, and used in rheumatism, gout, diseases of the spleen and liver. The juice of the fresh leaves acts as a mild purgative and is prescribed for children. The *Uchhyā* (? *M. muricata*) in infusion is said to act as a febrifuge. This is the *Sushavi* of the Sanskrits.

779 *M. dioica*, Roxb.

Vern.—*Dhár karela*, *kívara*, PB.; *Kurtoli*, BOM.; *Palipaghol-kalung*, TAM.; *Agokara* or *Angakara*, TEL.

Found throughout India, from the Himalaya to Ceylon and Singapore, ascending to 5,000 feet altitude on the hills. Very common in the neighbourhood of Bombay.

The plant mixed with cocoanut, pepper, and red sandal, applied in the form of liniment, relieves headache. The mucilaginous-tasted root is

used by the Hindus to stop bleeding from piles, and also in bowel complaints. (Ainslie.)

MORINGA.

Momordica cochinchinensis, Spreng.

780

Syn.—*M. MIXTA* (*Roxb.*, *Pl. Inde* iii, 709); *M. dioica*, *Wall.*Vern.—*Kakrol, gul-kakra, BENG.*

Common in Bengal, Tenasserim, the Deccan, and distributed to Formosa and the Philippines.

Fruit about 4 inches in diameter, ovate, pointed, bright red, covered with conical pointed tubercles. O'Shaughnessy says that Ainslie has erroneously called this the *makal*, thereby causing confusion with colo-cynth, and that the *kakrol* is an edible but medicinally inert fruit.

M. echinata, Muhl. See *Luffa acutangula, Roxb.*

M. muricata, DC. See *Momordica Charantia, Linn.*

Monetia barlerioides, L'Herit. See *Axima tetracantha, Lam.*, SAL-VADORACEÆ.

Monks hood. See *Aconitum*.

MORINA.

Morina persica, Linn., DIPSACEÆ.

781

Syn.—*M. WALlichiana, Royle.*Vern.—*Bekh ahmar, HIND.*

This plant is met with on western Himalaya, altitude 7,000 to 9,000 feet, from Kashmir to Kumaun.

Mr. Baden-Powell mentions this plant among his drugs, but says nothing about its medicinal properties. Dr. Dymock writes me that he has a suspicion this may prove Red Behen.

MORINDA.

Morinda citrifolia, Roxb., RUBIACEÆ.

782

THE INDIAN MULBERRY TREE.

Vern.—*Al, HIND.; Ach, aich, achhu, BENG.; Al, baratondi, BOM.; Noona-maram, TAM.; Munja, pavattary, TAM.; Yai-ya, BURM.*

A small tree or bush supposed to be wild in Malacca, but largely cultivated throughout India as a dye material.

"In Bombay the leaves are used as a healing application to wounds and ulcers, and are administered internally as a tonic and febrifuge." (Dymock.) The root is used as a cathartic.

MORINGA.

Moringa pterygosperma, Gérin., MORINGÆ.

783

HORSE-RADISH TREE.

Syn.—*HYPERANTHERA MORINGA, Vahl.*Vern.—*Ségma, sajna, BENG.; Soanjna, sanjna, HIND.; Mungd-ké-jhár, DEC.; Murungai, morunga, TAM.; Munaga, TEL.; Murinna, MAL.; Nugge-gidá, KAN.; Sajna, BENG.; Shewanjuna, SANS.; Dándalon-bin, daintha, BURM.; Segava, segata, BOM.*

A small, handsome tree, much distorted in the plains through the habit of coppicing to produce young twigs which are eaten.

MOSCHUS.

The root is described as acrid, pungent, stimulant, and diuretic, and a rubefacient when externally applied. The seeds are given in enlargements of liver and spleen. A decoction of root-bark is useful in inflammation, abscess and calculus affections. The gum, which the tree yields, mixed with sesamum oil, forms a remedy for ear-ache. The flowers are hot and dry and "can expel cold humours, disperse swellings, act as a tonic and diuretic, and increase the flow of the bile. The juice of the root with milk is diuretic, antilithic and digestive, and is useful in asthma. A poultice made with the root reduces swellings, but is very irritating and painful to the skin." The pods have anthelmintic properties. The oil expressed from the seeds form an external application for rheumatism. "The gum is said to be used to procure abortion." (Dymock.)

Morphia. See *Papaver*.

Morrhua or Cod Liver Oil. See *Gadus Morrhua, Linn.*

MORUS.

784. Morus indica, Linn., URTICACEÆ.

Vern.—*Tat*, ARAB.; PERS.; *Tat*, PR.; *Tutri*, *shatât* HIND.; *Shahtat*, KUMAUN; *Tat*, BENG.; *Chhota kimbu*, NEPAL; *Mekrap*, LEPCHA; *Nuni*, ASS.; *Mishu kattai-chedi*, TAM.; *Kambali-chettu*, TEL.; *Shalmali*, SANS.; *Posa*, BURM.; *Tata*, *shahtata*, SIND.

A moderate-sized, deciduous tree of the Sub-Himalayan tract, ascending to 5,000 feet; Sikkim valley, up to 4,000 feet; cultivated throughout North India.

"The root is considered a good anthelmintic and astringent. The fruit has an agreeable, aromatic, and acid flavour, is cooling and laxative, allays thirst, and is grateful in fevers." (Murray.)

785. M. nigra, Linn.

Vern.—*Tat*, *shahtat*, HIND.

Cultivated throughout the temperate zone.

The juice of the plant is a remedy for sore-throat. It consists of sugar and tartaric acid, and is a good refrigerant in fever. The fruit is prescribed by the hakims in sore-throat, dyspepsia and melancholia. The bark is a purgative and vermifuge. (Baden-Powell.)

MOSCHUS.

786. Moschus moschiferus, Linn., RUMINANTIA.

THE MUSK.

Vern.—*Mriganâvi*, *kasturi*, SANS., BENG.; *Misk* or *Mushk*, ARAB.; *Mushka*, SANS.

"Musk is the inspissated and dried secretion from the preputial follicles" (Royle). It occurs in irregular, reddish-black grains, having a strong diffusible odour and a bitter, aromatic taste. It is exported to England.

This substance possesses stimulant and anti-spasmodic properties; it is used "as a stimulant in typhus and typhoid fevers, and in the advanced stages of other febrile diseases, in asthenic pneumonia, retrocedent gout, hypochondriasis, and other affections of an asthenic type. Amongst the spasmodic and nervous affections in which it has been found serviceable are spasmodic asthma, laryngismus stridulus, the chronic stage of hoop-

ing cough, infantile convulsions, epilepsy, chorea, and various forms of hysteria, especially sleeplessness." (*Pharm. of India.*) It is also regarded as an aphrodisiac.

MUCUNA.

Mucuna pruriens, DC., LEGUMINOSE.

787

THE COWHAGE PLANT.

Vern.—*Akusa*, BENG.; *Kiwach, goncha*, HIND.; *Konatch*, NEPAL; *Kéch-kuri*, DEC.; *Panaik-kli*, TAM.; *Pilli-adugu*, TEL.; *Náyid-korana*, MAL.; *Nasaguni-gidá*, KAN.; *Kavach*, MAR.; *Kivánch*, GUZ.; *Khwele*, BURM.; *Kukila*, BOM.

An annual climber in the forests, from its golden brown, velvety pod, covered with irritating hairs.

In Hindu medical works, the seeds of this plant are described as a powerful aphrodisiac. The root is tonic and useful in nervine diseases. Ainslie says, that a strong infusion of the root, mixed with honey, is prescribed by the Tamil doctors in cholera. The hairs of the pod are known as a vermifuge in the West Indies. The *Pharm. of India* recommends that cow-hage should be administered as an electuary with treacle or honey. The pods dipped in the vehicle should be then scraped until the mass obtains the consistency of an electuary. A table-spoonful for an adult or a tea-spoonful for a child followed by a purgative expels the worms.

Mudar. See *Calotropis gigantea*, R.Br., and *Proceria*, R.Br., ASCLEPIADEÆ.

Mulberry. See *Morus indica* and *nigra*, URTICACEÆ.

Murdannia scapiflora, Royle. See *Aneilema tuberosa*, Ham., COM-MELINACEÆ.

MURRAYA.

Murraya Konigii, Spr., RUTACEÆ.

Syn.—*BERGERA KONIGII*, Linn.

Vern.—*Gandla, gandi, bowala*, PB.; *Harri, katnim*, HIND.; *Barsinga*, BENG.; *Surabhi-nimb*, SANS.; *Karhi-nimb*, MAHR.; *Karé-pak, karyé-pak*, DEC.; *Karu-oppilai, karu-vembu*, TAM.; *Kari-oepa-chettu*, TEL.; *Pido-sin, pindo-sin*, BURM.

A small tree of the outer Himalaya from the Ravi to Assam, Bengal, South India, and Burma.

The bark, root, and leaves of this tree are used in native medicine as tonic and stomachic. The bark and the root have also stimulant properties, and are applied to poisonous bites. The leaves are useful in dysentery, and in the treatment of eruptions. An infusion of the toasted leaves is reputed valuable to check vomiting. The root is slightly purgative.

MUSA.

Musa paradisiaca, Linn., SCITAMINEÆ.

789

THE PLANTAIN.

Vern.—*Kald*, BENG.; *Kld*, HIND.; *Tulhtula mous*, ARAB., PERS.; *Kadali*, SANS.; *Vashap-paaham*, TAM.; *Mous*, DEC.; *Anati-pandu, am-tipandu, kadali*, TEL.; *Vashap-paghan*, MAL.; *Kela*, GUZ.; *Kehal*, CINGH.; *Napiyd-st*, BURM.; *Kela*, BOM.

Extensively cultivated throughout India.

187

MYRICA.

The unripe fruit, called *mochg*, is cooling and astringent, and is very useful in diabetes. The leaf of the plant is used for dressing blistered surfaces. A piece of fresh plantain leaf forms a cool and pleasant shade for the eyes in ophthalmia, and by the natives is largely used in place of India-rubber cloth upon the outside of dressings for ulcers and other sores.

The powdered and dried leaf is used to stop bleeding in the nose. The root is said to be anthelmintic, and the sap of the fresh stem is given to allay thirst in cholera. (*Dr. Emerson.*)

790 *Musa sapientum*, Linn.

BANANA.

The same vernacular names apply here as to the preceding species.

The medicinal properties are in every way similar to those of the preceding plant.

Musk. See *Moschus Moschiferus*, Linn., RUMINANTIA.

MUSSÆNDA.

791 *Mussænda frondosa*, Linn., RUBIACEÆ.

Vern.—*Asari*, NEPAL; *Tumberh*, LEPCHA; *Maa-senda*, CINGH.; *Bhata-kesa*, *ländachâta*, BOM.

A handsome shrub of the North-East Himalaya, Bengal, South India and Burma, with yellow flowers and large white calycine leaf, often cultivated in gardens.

Said to be used medicinally.

Mustard. See *Brassica alba* and *nigra*, CRUCIFERA.

MYLABRIS.

792 *Mylabris cichorii*, Fabr., COLEOPTERA.

This and the following other species have been highly extolled as substitutes for cantharides : *M. indica*, *Fussl.*, *M. melanura*, *M. humeralis*, *M. proxima*, *M. orientalis*, *Lytta assamensis*, and *Epicanta nepalensis*.

M. cichorii exists plentifully in most parts of India. It was first brought to notice in 1809, and has since been much extolled by Drs. Burt, Hunter, Fleming and Bidie. (*Pharm. of India.*)

MYRICA.

793 *Myrica sapida*, Wall., MYRICACEÆ.

Vern.—*Asári*, *audul*, *quandbi*, ARAB.; *Darskishaán*, PERS.; *Kaphal*, *kaiphal*, N.-W. P.; *Kobusi*, NEPAL.; *Dingsola*, KHASIA HILLS.; *Marudampattai*, TAM.; *Kaidaryamu*, TEL.; *Marutantoli*, MAL.; *Káiphal*, BENG.; *K'ya-phala*, MAR.; *Kayaphala*, BOM.

A moderate-sized tree on the outer Himalayas, ascending to 6,000 feet in altitude, and extending to the Khásia hills and Burma.

The bark of this tree forms its most valuable product. It is considered heating, stimulant, and useful in diseases caused by the derangement of phlegm, such as catarrhal fever, cough and affections of the throat. (*U. C. Dutt.*) It is also used as a rubefacient and sternutatory.

In cholera cases, the body of the patient is rubbed with the powder made of the bark and ginger to bring about reaction. Dr. Emerson informs me that it is also used as an astringent gargle. Dr. Dymock adds that it is very similar in its action to Kino.

MYROB-
LANUS.

MYRICARIA.

Myricaria elegans, Royle., TAMARISCINÆ.

794

Vern.—Hámbar, ámbá, PB.

A small bush of the inner Western Himalaya and Tibet.

Aitchison says that the leaves form an application to bruises, &c.

Myriogyne minuta, Less. See *Centipeda orbicularis*, Lour., COM-
POSITÆ.

MYRISTICA.

Myristica malabarica, Lamk., MYRISTICÆ.

795

MALABAR NUTMEG.

Vern.—Kanagi, KAN.; Pindi-kai (seeds); Ráñajayaphala, BOM.

A small, evergreen tree, found in South Kanara and Malabar. Gamble says that the seeds yield an oil used for burning purposes, and also medicinally as an ointment for sores.

The arillus (*Rampatri* of the bazars) has lately been exported to Europe as Bombay mace (Dr. Dymock.)

M. moschata, Willd.

796

NUTMEG; MACE.

Syn.—M. OFFICINALIS, Linn.

Vern.—Jaiphal, jati, jauntri, HIND., BENG.; Jousbuvá, jounuttib, ARAB.; Jousbóyah, PERS.; Japhal, DEC.; Jádikkúy, TAM.; Jaji-
kdyá, TEL.; Jatikka, MAL.; Jajikayi, KAN.; Jaji, SANS.; Jayóphal, GUZ.; Zádiphi, BURM.

A tree cultivated in many parts of India, Ceylon, and the Malay Archipelago.

The kernel of the fruit and the expressed oil is officinal, and possesses stimulant and carminative properties. It acts as a narcotic in large doses. It is chiefly useful in atonic diarrhoea, flatulence, colic and certain kinds of dyspepsia. An infusion of nutmegs is known to be of great service in quenching the thirst of cholera patients. Nutmegs are frequently chewed to improve foul breath, and made into a paste they are sometimes used in neuralgia, lumbago, &c.

- Myrobalam, Emblic. See *Phyllanthus Emblica*, Linn., EUPHORBIACEÆ.

- Myrobalams. See the species of *Terminalia*.

- Myrobalanus Chebula. Gérin. See *Terminalia Chebula*, Rüss., COMBRETACEÆ.

MYROXYLON.

797 Myroxylon Pereiræ, Klotzsch., LEGUMINOSÆ.

BALSAM OF PERU.

A middle-sized tree, a native of Central America.

The oleo-resin, which exudes from the trunk of the tree, after removal of the bark, is a mild stimulant and expectorant, applicable to similar purposes as the Balsam of Tolu. It is occasionally employed in the form of ointment as a stimulating application to old sores. (*Pharmacographia*.)

798 M. Toitifera, H. B. K.

BALSAM OF TOLU.

An elegant and lofty evergreen tree, often as much as 40 to 60 feet from the ground to the first branch. It is a native of Venezuela and New Granada.

The Indian Pharmacopœia describes the balsam as a mild stimulant and expectorant, while the author of *Pharmacographia* says that it has no important medicinal properties. It is chiefly used as an ingredient in a pleasant, tasting syrup and in lozenges.

Myrrh. See *Balsamodendron Myrrha, Nees.*, BURSERACEÆ.

MYRSINE.

799 Myrsine africana, Linn., MYRSINÆ.

Vern.—*Bebrang, kakhum, kohkuri, gugul, bandru, atuljan, PB.; Guvaini, pahari cha, chupra, N. W. P.*

A small, evergreen shrub of Afghanistan, Kashmir, Salt Range, as far as Nepal, altitude 1,000 to 8,500 feet.

Fruit used as an anthelmintic (especially for tape-worm), sold under the name of *Bebrang*, and often used as a substitute for that of *Samara Ribes*. (*Gamble*.) It is also laxative in dropsy and colic. The gum of this plant is a warm remedy for dysmenorrhœa. Continued use is said to produce a high-coloured state of urine.

MYRTUS.

800 Myrtus communis, Linn., MYRTACEÆ.

THE COMMON MYRTLE.

Vern.—*As, abires, ARAB.; Burghi-moorad, PERS.; Veldyuti mehndi, mārad, HIND.; Habb-ul-ás, PB.; Abhoolas, SIND.*

This plant is extensively grown in India; it extends from the Mediterranean region as far as Afghanistan and Biluchistan.

The leaves are officinal and useful in cerebral affections and flatulence. The fruit is carminative and emetic, and given in dysentery, diarrhoea, internal ulcers, and rheumatism.

A gargle of the leaves is used in aphthæ; a paste of the seeds is applied locally to scorpion bites. The seeds ground down and mixed with antimony, are used to colour the eyelids with the view of improving personal appearance. This is specially the case in Upper India. (*Dr. Emerson*.)

NECTANDRA.

NARCISSUS.

801

Narcissus Tazetta, Linn., LILIACEÆ.**Vern.—Nargis, Irisa, Pb.**

Indigenous in South Europe, North Africa, and Asia Minor. The root of this plant are officinal and are obtained from Kashmir.

The root possesses emetic properties. It is also absorbent. As a perfume it is used to relieve headache.

NARDOSTACHYS.**Nardostachys Jatamansi, D.C., VALERIANÆ.**

802

SPIKENARD.**Syn.—PATRINIA JATAMANSI, D.C.; VALERIANA JATAMANSI, Don.**

Vern.—Sunbuluttibe-hindi, ARAB., PERS.; Jatamasi, bâl-chhar, HIND.; Shatú-mánsi, DEC.; Jatamáshi, TAM.; Jatamámshi, TEL.; Yetá-mánschi, MAL.; Jatámánsi, SANS., BENG.; Bâlacharea, sumbul, BOM.; Yarumánsi, CINGH. As with Valeriana cats are fond of the smell of this root, hence it is sometimes called Billi-lotan, DEC.

A plant of the Alpine Himalaya, altitude 11,000 to 15,000 feet; from Kumaun to Sikkim, ascending to 17,000 feet in Sikkim.

The roots of this plant are aromatic and bitter in taste. They are supposed to possess tonic, stimulant and antispasmodic properties, and are often employed in the treatment of epilepsy, hysteria, and convulsive affections; they are also considered to be deobstruent, diuretic and emmenagogue, and recommended in various diseases of the digestive and respiratory organs. *Jatamansi* is said to be useful in jaundice, affections of the throat, and as an antidote for poisons. It is popularly believed to have the power of promoting the growth and blackness of hair. It has been noticed by Ainslie that in Lower India, the people prepare a fragrant and cooling liniment from this drug, to be applied to the head and used internally as a blood-purifier.

Narthex asafœtida. See *Ferula Narthex*.**NAUCLEA.****Nauclea Cadamba, Roxb. See Anthocephalus Cadamba, Miq., RUBIACEÆ.****N. ovalifolia, Roxb.**

803

The *Flora of British India* mentions it as a doubtful species, met with in the "forests of Silhet called shâl by the natives,—possibly *Adina sessilifolia*. Don refers it to *Uncaria elliptica*, which is not a Khásian plant."

The bark is said to possess bitterness equal to that of cinchona and is used by the border tribes in the treatment of endemic fevers and bowel complaints. (*Pharm. Ind.*)

NECTANDRA.**Nectandra Rodiei, Schom., LAURINEÆ.****GREENHEART TREE.**

804

A native of British Guiana.

The bark is officinal, being an astringent tonic.

**NEPHROD
DIUM.**

805

NELUMBNIUM.***Nelumbium speciosum*, Willd., NYMPHACEAE.**

PYTHAGOREAN BEAN; LOTUS.

Vern.—*Kansal, kanval, HIND.; Nilufar, ARAB., PERS.; Kamala, SANS.; Badama, BENG.; Pampash, PB.; Kamala, BOM.; Nilophar, SIND.; Ambal, TAM.*

Found throughout India, extending as far to the north-west as Kashmir.

The filaments, known under the name of *kinjalika*, are astringent and cooling, and prescribed in the burning of the body, bleeding from piles and menorrhagia. The seeds are considered medicinal, and used to check vomiting. They are also given to children as diuretic and refrigerant. The large leaves form cool bedsheets, useful in fever accompanied by much heat and burning of the skin. It is said that the milky viscid juice of the leaf and flower-stalks is a remedy in diarrhoea, and that the petals are slightly astringent.

A sherbet of this plant is used as refrigerant in small-pox, and is said to stop eruption; used also in all eruptive fevers. The root is used as a paste in ringworm and other cutaneous affections. (*Dr. Emerson.*)

NEPETA.

806

***Nepeta ciliaris*, Benth., LABIATE.**Vern.—*Zifa yabis, PB.; Joofa, SIND.*Occurs in the Punjab Himalaya at from 4,000 to 8,000 feet.
It is given in sherbet for fever and cough.

807

***N. elliptica*, Royle.**Vern.—*Takht malanga, PB.*

Found in the Salt Range and in the Punjab Himalaya from 3,000 to 9,000 feet.

Seeds are said to be medicinal.

808

***N. ruderale*; Hamilt.**Vern.—*Billi lotan, badranj boyo, bebrang khatai, PB.*The plant grows in the Siwalik tract and Salt Range to 3,000 feet.
It is supposed to be cardiac tonic.

Decoction used as a gargle in sore-throat. Largely used in fevers.
(*Dr. Emerson.*)

NEPHRODIUM.

809

***Nephrodium Filix-mas*, Richard, FILICES.**Syn.—*ASPIDIUM FILIX-MAS, Sims.*

Met with in the Himalayas.

The dried rhizome is officinal in the Indian Pharmacopoeia, being anthelmintic, especially adapted for the treatment of tapeworm.

NERIUM.

Nerium odoratum, Soland., APOCYNACEÆ.

810

SWEET-SCENTED OLEANDER.

Vern.—*Difff*, ARAB.; *Khar-sakrah*, PERS.; *Kantr, kand, karber*, HIND.
Kanira, kaner, gankira, PB.; *Kanykr*, KUMAUN; *Alari*, TAY.; *Ganndru*,
TEL.; *Alari*, MAL.; *Kanagale*, KAN.; *Karavira*, SANS.; *Karabi*, BENG.
Kanhera, BOM.

A large shrub of Central India, Sind, Afghanistan, and the outer Himalaya, to 5,500 feet. Often cultivated. There are two varieties, one with white flowers and the other with red.

"All parts of the plant, especially the root, are recognised by the natives as poisonous, and as such are used for criminal and suicidal purposes. In over-doses it is productive of serious and even fatal effects." It is sometimes used to procure abortion. In skin diseases, such as leprosy and inflammatory affections, the root and bark are highly beneficial. In the form of a paste it is recommended to be applied to ulcers on the penis. The juice of the tender leaves forms a remedy for ophthalmia. The decoction of the leaves is said to reduce swellings, and the paste made from the bark is a medicine for itch and ringworm. According to Mahomedan physicians the root is a powerful resolvent and attenuant.

Nicandra indica, Räm. & Sch. See *Physalis minima*, Linn., var. *indica*, SOLANACEÆ.

811

NICOTIANA

Nicotiana rustica, Linn., SOLANACEÆ.

LATAKIA TOBACCO.

Vern.—*Chilassi tamaku, kukkar, tamakú*, PB., HIND.

Cultivated in West Punjab.

The medicinal properties of this plant are similar to those of the following.

812

N. Tabacum, Linn.

TOBACCO.

Vern.—*Tamakú*, HIND.; *Tanbak*, ARAB.; *Tanbaku*, PERS.; *Támák*, BENG.;
Támrakáta, SANS.; *Tamákú, tamágú*, DEC.; *Pugai-ilai*, TAM.; *Pogáku*,
dhumrapatramu, TEL.; *Puka-yila, pokala*, MAL.; *Hógesappu*, KAN.;
Tamáku, GUZ.; *Dungasha, dímcola*, CINGH.; *Sé*, BURM.; *Tambakku*,
BOM.

Cultivated throughout India.

The dried leaves of this plant are officinal. They are powerfully sedative and antispasmodic, and in overdoses an acro-narcotic poison; useful in "tetanus, dropsical affections, spasmodic affections of the abdomen, retention of urine, and as a means of inducing muscular relaxation, and thus aiding in the reduction of strangulated hernia and dislocations. As a general rule it is unsuitable for internal administration, on account of the great nervous depression it produces. As a local application, it has been used for relieving pain and irritation in rheumatic swellings, syphilitic nodes, and skin diseases. Tobacco-smoking is sometimes se-

NOOGATA.

sorted to in asthma, spasmodic coughs, nervous irritation and sleeplessness." (*Pharm. Ind.*)

Tobacco-smoking is considered a good preventative against toothache. It is cardiac, sedative, and hence the danger to people affected with heart-disease smoking tobacco. (*Dr. Emerson.*)

NIGELLA.

- 813** | *Nigella sativa*, Linn., var. *indica*, RANUNCULACEÆ.

SMALL FENNEL; SIBTHORP.

Vern.—*Kalonyi*, *kalajira*, DÉC.; *Sh-o-nis*, *hamun-a-saad*, ARAB.; *Siyah-dánah*, PERS.; *Karun-shiragám*, TAM.; *Nalla-jilakara*, TEL.; *Kala-jira*, BENG.; *Krishna-jiraka*, SANS.; *Kelajira*, MAR.; *Kaluduru*, CINGH.; *Samon-né*, BURM.; *Kálanjira*, BOM.

Extensively cultivated for its seed.

The seeds of this plant, according to Ainslie, are carminative, and may be used as such in the absence of other remedies of the same class. They are also regarded as stomachic and digestive, and therefore useful in indigestion, loss of appetite, fever, diarrhoea and puerperal diseases. They are supposed to be lactagogue and are given to females just after delivery. The hakims describe them as detergent and diuretic, emmenagogue to a certain extent, and capable of stimulating the action of the uterus. They also prescribe the seeds in diseases which originate in cold humours, and ascribe to them anthelmintic properties. *Nigella* seeds, in combination with sesamum oil, also form an external application for skin eruptions, and if put within the folds of woollen cloths, can keep them from being worm-eaten.

Nightshade, Deadly. See *Atropa Belladonna*, Linn., SOLANACEÆ.

Nima quassoides, Hum. See *Picrasma quassoides*, Benn., SIMARUBÆ.

- 814** Nitrate of Potash.

SALTPETRE.

It is refrigerant, diuretic and diaphoretic; irritant if given in the solid form or in strong solution, and poisonous in large doses. It is used internally in febrile and inflammatory affections, acute and chronic rheumatism, haemorrhage, dropsical affections, dysmenorrhœa, gonorrhœa, leucorrhœa and certain kinds of dyspepsia. (*Pharm. Ind.*)

NOTONIA.

- 815** *Notonia grandiflora*, DC., COMPOSITÆ.

Syn.—*CACALIA KLEINIA*, Herb., Madr.; *N. CORVMBOSA*, DC.

Vern.—(?)

Met with on the Nilgiris, also found on high rocky precipices in the Deccan.

"This plant was brought forward in 1860, by Dr. A. Gibson, as a preventive of hydrophobia. The mode of administration is as follows:—About four ounces of the freshly-gathered stems, infused in a pint of cold water for a night, yield in the morning, when subjected to pressure, a quantity of viscid greenish juice, which, being mixed with the water, is taken at a draught. In the evenings a further quantity of the juice, made up into boluses with flour, is taken." (*Pharm. Ind.*)

Nutmegs. See *Mystica moschata*, *Wild.*, MYRISTICÆ.

Nux Vomica. See *Strychnos Nux-vomica*, *Linn.*, LOGANIACEÆ.

NYCTANTHES.

Nyctanthes Arbor-tristis, *Linn.*, OLEACEÆ.

816

Vern.—*Har, siharu, harsinghor, saherwa, seoli, nibari*, HIND.; *Shinghor, harsingor, sephalika*, BENG.; *Pakara, laduri, kuri*, PB.; *Manjapa*, TAM.; *Tsayberloo*, BURM.; *Harsingara*, BOM.

A small tree of Central India, extending to Bengal and Burma; cultivated throughout India.

"The leaves are useful in fever and rheumatism. The fresh juice of the leaves is given with honey in chronic fever. A decoction of the leaves, prepared over a gentle fire, is recommended by several writers as a specific for obstinate sciatica." (*U. C. Dutt.*) "Six or seven of the young leaves are rubbed up with water and a little fresh ginger, and administered in obstinate fevers of the intermittent type. The powdered seeds are used to cure scurvy affections of the scalp." (*Dymock.*)

It is antibilious and expectorant, and useful in bilious fevers. (*Rai Kani Lall Dé, Bahadur.*)

NYMPHÆA.

Nymphaea alba, *Linn.*, NYMPHÆACEÆ.

817

Syn.—*N. EDULIS*, DC.

Vern.—*Brimposh, nilofár, kamád*, PB.

Found in Kashmir Lake, altitude 5,300 feet. An infusion of the flower and fruit is given in diarrhoea and as a diaphoretic.

N. Lotus, *Linn.*

818

Syn.—*N. EDULIS*, DC.

Vern.—*Nilufar*, ARAB.; *Kanval, chkota kanval*, HIND.; *Alli-phul*, DEC.; *Alli-tamarai, ambal*, TAM.; *Alli-tamara*, TEL.; *Anpala*, MAL.; *Nyadale-huru*, KAN.; *Shaluk, nal*, BENG.; *Kamala*, SANS.; *Kanval*, GUZ.; *Kiya-nu*, BURM.

Common throughout the warmer parts of India.

The flowers are medicinally used as a dry and cold astringent in diarrhoea, cholera, fever, and diseases of the liver. The root is prescribed for piles as a demulcent. Seeds form a cooling medicine for cutaneous diseases and leprosy, and an antidote for poisons.

Ochre, Red.

819

OCHROCARPUS.

Ochrocarpus longifolius, *Benth. & Hook. f.*, GUTTIFERÆ.

820

Syn.—*COLYSACIÓN LONGIFOLIUM*, *Wight*; *CALOPHYLLUM LONGIFOLIUM*, *Wall.*

Vern.—*Suringi*, MAR.; *Sara-ponna*, TEL.; *Seraya*, MAL.; *Wandi, taringi, poone*, KAN.

A large, deciduous tree of the Western Ghâts.

The flowers possess mild, stimulant properties, but they are chiefly used like, or in place of, *Mesua ferrea*, *Linn.*, in dyeing silk.

ODINA.

OĆIMUM.

821 Ocimum Basilicum, Linn., LABIATE.

COMMON SWEET BASIL.

Syn.—*O. PILOSUM.*

Vern.—*Shikhasaram, raikhán, ARAB.; Shikhasparam, násbi, dabán-shák,*
PERS.; Sabah, HIND., DEC.; Tirunítru, pach-ch-ai, TAM.; Rudra-
jeda, TEL.; Tiru-nítru, pach-chá, MAL.; Kám-Kasturi, KAN.; Bábdi-
tulshi, BENG.; Vishva-tulasi, SANS.; Sabaa, GUZ.; Pinnaín, pinsin,
BURM.; Sabajhi, SIND.; Tulsi, babári, PB.

An erect, herbaceous annual, indigenous in Persia and Sind; growing throughout India.

The seeds of this plant are mucilaginous and cooling, given in infusion in gonorrhœa, diarrhoea and chronic dysentery. The juice of the leaves form an excellent nostrum for the cure of ringworms, and the bruised leaves for scorpion stings. The seeds and flowers also possess stimulant, diuretic and demulcent properties. Diaphoretic and expectorant properties are also ascribed to this plant; a cold infusion of the seeds can relieve after-pains of parturition.

The leaves are useful in the treatment of croup, for which the juice warmed with honey is given. (*Rui Kani Lall Dó, Bahadur.*)

822 O. gratissimum, Linn.

Vern.—*Ram-tulsi, HIND., DEC.; Ram-tulshi, BENG.; Furanimishk,*
ARAB.; Palangmishk, PERS.; Elumich-cham-tolashi, TAM.; Nimma-
tulasi, TEL.; Káttu-tutuvá, MAL.

Cultivated in India.

A decoction of the mucilaginous seeds is an esteemed remedy in gonorrhœa and in aphtha of children. Baths and fumigation prepared with this plant are used in the treatment of rheumatism and paralysis. (*Pharm. Ind.*)

823 Ocimum sanctum, Linn.

Vern.—*Barandá, varanda, tulsi, HIND.; Tulsi, DEC.; Tulashi, TAM.;*
Iulasí, krushna-tulasi, gaggera-chettu, TEL.; Tulasi, nallutirtta,
nalla-tuttura, MAL.; Tulashigida, KAN.; Tulshi, BENG.; Tulashi, SANS.;
Tulas-icha-jháda, MAR.; Tulsi, GUZ.; Muduru-tulla, CINGH.; Lun,
BURM.; Tulasa, BOM.

Found throughout India.

The leaves of this plant, dried and powdered, form a snuff known as a remedy for the affection of the nasal cavity called *Peenash*. They are also an effectual means of dislodging the maggot. (*Dr. J. Newton.*)

ODINA.

824 Odina Wodier, Roxb., ANACARDIACEE.

Vern.—*Kashmala, jingam, kaimil, kimul, mowen, ginyan, HIND.; Jiyal,*
bóhar, ghadi, BENG.; Odia-maram wodier, TAM.; Odai-mánu, TEL.;
Nabhay, BURM.; Simati, moyá, SIND., BOM.

A small tree on the Himalayas, ascending to 4,000 feet in altitude; common in the forests of India and Burma.

The bark is astringent, and is used in the form of decoction as a lotion in eruptions and old ulcers. The decoction also forms an excellent gargle. The powder of the bark, in combination with *nim* oil, is considered as a valuable application for ulcers.

A.E.

OLDENLANDIA.

Oldenlandia corymbosa, Linn., RUBIACEAE.Syn.—*O. BIFLORA*, Lam.; AND OF *Raab.* OF *Kurz.*; NON Linn.; *O. RAMOSA*, Raab.Vern.—*Daman-papar*, HIND.; *Khotpapra*, BENG.; *Popalo, hasuri*, GOA.

Found throughout India ascending the hills to altitude 5,000 feet. There cannot be a doubt but that all the allied species to this plant are used indiscriminately with this particular species. Indeed, it seems doubtful if any botanical purpose is served by separating plants so nearly allied to each other as some of the so-called species in this troublesome genus.

The plant is considered an important medicine in the treatment of fevers which have their origin in the derangement of air and bile. The whole of the plant is used medicinally in the form of decoction. It acts as an alterative when given in low forms of fever. "The entire plant is prescribed in decoction and is combined with aromatics. When in Goa I found it in all the drug-shops, and was told that it is much used in that part of the country combined with *Adiantum lunulatum* and *Hydrocotyle asiatica* as an alterative in low forms of fever. I have never seen it in the Bombay shops, nor have I heard of its being used." (Dymock.)

Oldenlandia umbellata, Linn.Syn.—*HEDVOTIS UMBELLATA*, Lam.

Com. Names.—CHAYROOT, sometimes called INDIAN MADDER.

Vern.—*Chirval, chirval-ki-lakri*, HIND., DEC.; *Surbuli*, BENG.; *Cherivello, chiru-voru*, TEL.; *Sayawer, imbiral*, TAM.

A common plant, from Orissa southward to Ceylon and Burma, found on sandy soils.

"The small, narrow, pale green leaves of this low-growing plant the native doctors consider as expectorant, and prescribe them accordingly; of the virtues of the root in poisonous bites, colds and cutaneous disorders, as mentioned in *Miller's Dictionary*, nothing is known." When dried and powdered the leaves are sometimes mixed with flour and made into cakes, which are eaten by such as suffer from consumptive and asthmatic affections. The dose of the decoction of the leaves is about an ounce twice daily. (Ainslie.)

OLEA.

Olea cuspidata, Wall., OLEACEAE.Syn.—*O. FERRUGinea*, Royle.Vern.—*Khanan, shwan*, TRANS-INDUS; *Zaitán*, ARG.; *Ko, koku, kdo, kan, Pa*; *Kan*, HIND.; *Khan*, SIND.

A moderate-sized, deciduous tree of Sind, Sulaiman and Salt Ranges, North-West Himalaya, extending as far as the Jumna eastward, and ascending to 6,000 feet.

An oil is extracted from the fruit which is used medicinally. Leaves and bark are bitter and astringent; used as an antiperiodic in fever and debility.

O. europaea, Linn.

THE OLIVE.

It has been introduced on the Himalaya and Nilgiris.

825

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ONOSMA.

The oil expressed from the fruit, of a pale-yellow colour, is used medicinally as a mild laxative; "principally used as an emollient ingredient in enemas, in bowel affections, and also as a mechanical antidote in cases of poisoning, enveloping the poisonous particles, and protecting the surface of the stomach from their action. . . . Applied also to relieve pruritus in skin diseases, and to protect the surface from the action of the air in burns and scalds. Inunction with it has been thought to be a preventive of the plague."

Olea ferruginea, Royle. See *Olea cuspidata*, Wall., OLEACEAE.

829 *O. glandulifera*, Wall.

Vern.—*Gálli, raban, sira, phalsh*, PB.; *Gair, galdu, garir*, KUMAUN.

A moderate-sized tree of the outer Himalaya, from the Indus to Nepal, between 2,500 and 6,000 feet. It is also found on the Nilgiris and Anamallay hills in South India.

The bark and the leaves of the plant are astringent, and used as an antiperiodic in fevers.

Oleander. See *Nerium odoratum*, Soland., APOCYNACEAE.

Olibanum. See *Boswellia*.

ONOSMA.

830 *Onosma bracteatum*, Wall., BORAGINÆ.

Syn.—*O. MACROCEPHALA*, Don.

Vern.—*Gao-sabán* (Ox's tongue) HIND., BOM., BEN., and TAM.; the flowers are known as *Gul-i-gao-sabán*, LALGIRI, KASHMIR (see Don's System, Gen., IV, 316.)

Royle says this is the Indian representative of the *Buglossum* or *Fooghulus* of the Greeks.

Under the name of *Gao-sabán* are sold in our bazars fragmentary leaves covered with curious tuberculated glands, each terminated by a hair. The flowers *gul-i-gao-sabán* are purple trumpet-shaped, and fully an inch or inch and a half in length. This answers briefly to the specimens shown to me by a hakim in Benares the other day, and it corresponds closely with Dr. Dymock's description of the Bombay *Gao-sabán*. I have, however, not seen the perfect plant, and have a lingering suspicion that the flowers and fragments of leaves shewn to me do not belong to the same plant. *O. bracteatum* is described by the *Flora of British India* as having flowers with a corolla tube half inch long slightly dilated upwards, whereas the flowers described above had a tube quite an inch long, almost cylindrical throughout, and suddenly expanding into the limb, nearly an inch in diameter.

Most authors seem, however, to refer the *Gao-sabán* to *O. bracteatum*, and it is perhaps advisable to adhere to this opinion for the present. The *Flora of British India* informs us that this plant is a native of the western Himalaya from Kashmir to Kumaun. Stewart regards the leaves of *O. echinoides*, LINN., as the *Gao-sabán* of the Punjab, and in this opinion he is apparently followed by Atkinson and by Murray. The flowers of *O. echinoides* are, however, much smaller than of *O. bracteatum*, and they are pale yellow instead of purple. As these are characters which could easily enough be detected in the specimens found in the hakims' shops, it would be interesting to know if flowers of this description are actually met with. Information of this nature would, in fact, tend to throw some light upon the origin of the purple flowers which seem to be those chiefly

sold as *gul-i-gao-sabán*. Atkinson gives the additional vernacular names of *maharanga* and *tal-jari*, the latter being apparently the *tal-jiri* of Dr. Buchanan. But Sir W. O'Shaughnessy still further complicates this matter. In his *Dispensatory*, p. 496, he informs us that *Maharanga* is the name given to *O. exodi*, Wall., in allusion to "the intensity of its colour." In page 495, he informs us that the *Bugloss* of the Greeks is *Anchusa italica*, Rott., and Royle, in his *Illustrations of the Himalayan Botany*, p. 305, mentions collecting a specimen of this plant at Jhelum on the road to Kashmir. De Candolle in his *Prodromus*, X., p. 47, upon this authority gives Kashmir as a locality where *A. italica*, Retz., is to be found. The *Flora of British India* corrects this by informing us that the plant doubtless exists in gardens in Kashmir, but is not wild. Speaking of the *Bugloss* of the Greeks, however, O'Shaughnessy goes on to say that "in India the Greek synonyms *bugloosan* and *fooghulus* are assigned to *Onosma bracteatum*, Wall. In the Bombay bazars the *Cacalia Kleinia* is similarly termed *Gao-sabán* or 'Cow's tongue.' The confusion, however, is but of little importance as the article (*Onosma bracteatum*) is destitute of any real medicinal value, being simply emollient, mucilaginous, and perhaps slightly diuretic." The *Pharmacopæia Indica* points out that two mistakes have been made with regard to *Cacalia Kleinia*, Linn., being regarded as the source of the *Gao-sabán*; 1st, *C. Kleinia*, Linn., is not a native of India, and, 2nd, the specimens bearing the name *Gao-sabán*, as sent to England, were identified as belonging most probably to *Echium*, a genus of *Boragineæ* (see Moodeen Shariff "Echium," p. 133). There seems no doubt whatever, but that the name *Gao-sabán* is applied to a species of *Boragineæ*. Still, however, we have this curious fact to urge that while *Cacalia Kleinia*, Linn., is not a native of India, *Cacalia Kleinia*, Mad., Herb. (by the *Flora of British India* reduced to *Notonia grandiflora*, Dals.) is a common plant in the west coast, and some such plant may have been *Gao-sabán* of O'Shaughnessy, while *Echium* to which the specimens were referred is not met with in India. What seems more puzzling is the fact that Sir W. O'Shaughnessy must have experimented with both plants and had them side by side. He pronounced *O. bracteatum* useless, but of the so-called *Cacalia Kleinia* (what he appears to have regarded as the true *Gao-sabán* of the Indian physicians) he writes that it is "deserving extensive trial." In his preface he informs us that while it was his "duty to prepare and arrange all the botanical details, he felt too conscious of his own incompetence in this department to warrant his sending a line to the press without Dr. Wallich's supervision." When it is remembered that Dr. Wallich is the original author of the name *Onosma bracteatum*, and that he must have concurred with O'Shaughnessy's opinion regarding this plant, it seems irresistible that whatever the so-called *Cacalia Kleinia* may have been, and of which O'Shaughnessy spoke so highly, it was not *Onosma bracteatum*, Wall. Dr. Birdwood says "all Indian authorities refer *Gao-sabán* to the above plant (*C. Kleinia*, W.), but the *Gao-sabán* of the bazars is also derived from *Anisomelis malabarica*, R. Br., Labiate; *Trichodesma indicum*, Br." "*Heliotropium ophioglossum*, Stocks, and *Onosma bracteatum*, Wall., *Boragineæ*." There are doubtless many widely different plants sold by the Indian druggists under the name of *Gao-sabán*, and it therefore becomes imperative, that the greatest care should be bestowed in discovering the true *Gao-sabán*, which has been much extolled. Dr. Dymock in quoting O'Shaughnessy's description of the merits of *Cacalia Kleinia* under *Onosma bracteatum* seems to have come to the conclusion, that O'Shaughnessy had mistaken the one for the other, and in this opinion he may be correct.

OPOPANAX.

The *Makhsun-ul-Adwiyah* says that the *Gao-sabán* is a small shrub with dark purple flowers, smaller, but in shape somewhat resembling the pomegranate. It is a native of Persia, but was in his time known in cultivation at Azimabad. This description would certainly agree with a species of the *Boraginaceæ*.

This analysis of the present literature, on the subject of *Gao-sabán*, has been published in the hope of calling out additional material and specimens from the different provinces of India.

Dr. Dymock writes me that *Cacalia Kleinia* is not found in the bazaars of Bombay; but what is *Cacalia Kleinia*?

831 **Onosma echiodes, Linn.**

Vern.—*Rattanjot*, HIND.

A small plant, growing on the Himalayas, the root of which constitutes the principal part of the medicine known as *Rattanjot*. Stewart states that he has confused this plant with *Macratomia perennis*, Boiss. (*M. euchroma*, Royle), and that the bruised root of one or both forms the *Rattanjot* for which as an adulterant the roots of *Geranium nodosum* are sometimes sold, as also those of *Potentilla nepalensis* and *Jatropha Curcas*.

The bruised root is used as an application to eruptions. The leaves possess alterative properties, and the flowers are prescribed as a cordial and stimulant in rheumatism and palpitation of the heart. (Stewart.)

Ophelia angustifolia, D. Don. See *Swertia angustifolia*, Ham., GENTIANACEÆ.

O. Chirata, Griseb. See *Swertia Chirata*, Ham.

O. densifolia, Griseb., and **O. multiflora, Dals.** See *Swertia decussata*, Nimmo.

O. elegans, Wight. See *Swertia affinis*, Clarke.

OPHIORRHIZA.**Ophiorrhiza Mungos, Linn., RUBIACEÆ.**

832

Vern.—*Kiri-purandán*, TAM.; *Sarpishi-chettu*, TEL.; *Dal-kattiya*, CINGH.

Met with in the Khásia Mountains and Assam, ascending to 2,000 feet; also in Burma, Tenasserim, Andaman and Nicobar Islands and the mountains of the Western Peninsula and Ceylon.

The root is intensely bitter and may be used as a tonic. Popularly believed to be a remedy against the bites of venomous snakes, mad dogs, &c.

Ophioxylon serpentinum, Linn. See *Ranwolia serpentina*, Benth., APOCYNACEÆ.

Opium. See *Papaver somniferum*, Linn., PAPAVERACEÆ.

OPOPANAX.**Opopanax Chironium, Koch., UMBELLIFERA.**

833

The gum-resin known under the name *Opopanax* is used medicinally and resembles asafoetida in its stimulant and antispasmodic properties. Hakims prescribe this medicine in uterine affections, flatulence, colic, convulsions, discharges and indurations.

OPUNTIA.

- *Opuntia Dillenii*, Haw., CACTEAE.

Syn.—CACTUS INDICUS, Roxb.

Vern.—Nág-phana, HIND.; *Nág-phana, pheni-mama*, BENG.; *Chappal-sind*, DEC.; *Nág-a-ddli*, TAM.; *Nág-a-dali*, TEE.; *Nágamulla*, MAL.; *Kodu-gaha*, CINGH.

An American plant naturalised in India.

Roxburgh says that the Cochineal insects brought from America thrived and multiplied abundantly on his *Cactus indica*.

ORCHIS.

, *Orchis mascula*, Linn., ORCHIDÆ.

THE SALEP.

The tubers of many species of terrestrial orchids yield highly nutritious food known as Salep. Large quantities are prepared in Macedonia and Greece, and exported to all parts of the world, a considerable quantity of the European-prepared article even reaching India. Salep contains the chemical substance Bassorine, a substance so nutritious that one ounce a day of Salep is said to be enough to sustain a man. The Mahomedans consume large quantities of Salep (*salip-misri*, Beng.), but this is obtained chiefly from a species of *Eulophia*, an orchid common in the north-west Himalaya and Kashmir. The Mabomedan physicians regard Salep as aphrodisiac and tonic. See *Eulophia vera*.

ORIGANUM.

, *Origanum Majorana*, Linn., LABIATÆ.

SWEET MARJORAM.

Vern.—Murwo, SIND.

A common wild plant in Kumaun, cultivated in gardens throughout India, especially in South India, for its seeds.

The seeds are officinal, and are considered astringent and a remedy for colic. The leaves are eaten along with *Gynandropsis pentaphylla*, DC., as a remedy for colic. An essential oil is also distilled from them, used as a perfume and for hot fomentations in acute diarrhoea.

, *O. vulgare*, Linn.

This is also called MARJORAM by Europeans in India.

Vern.—Mirzanjash, PB., HIND.; *Mianganosh*, PERS.

An herb of the Punjab Himalaya and Kashmir ascending from 2,500 to 10,000 feet.

It yields a volatile oil, useful as an aromatic, stimulant and tonic in colic, diarrhoea and hysteria. It is also applied in chronic rheumatism and tooth-ache. It is said to stimulate the growth of hair, and also to act as an emmenagogue. Aitchison says this is eaten as a pot-herb in Lahoul.

Considered a good "pick-me-up" after a carousal. The oil is dropped into the ear for earache. (Dr. Emerson.)

PLATE

OROXylum.

- 838** *Oroxylum indicum*, Benth., BIGNONIACEÆ.

Syn.—*CALOSANTHES INDICA*, Bl.

Vern.—*Ulu, arlu, kharkath, assar sauna*, HIND.; *Mulin*, PS.; *Karum-handa*, NEP.; *Koring*, GARO; *Pana, vanga, achi*, TAM.; *Kyoung-yateng*, BURM.

A small tree on the outer Himalaya, ascending to 3,500 feet; and extending to Bengal, Burma, Central and South India, and the Andaman Islands.

Mr. Manson says a powder made from the bark along with *hurdy* is a useful cure for the sore-backs of horses. (Gamble.)

- 839** *Orpiment*. See *Arsenicum*.

A corruption of the Latin term *Aurum pigmentum*, or the golden pigment. This is sulphuret of arsenic, the *Hastal* of Hindustan.

ORYZA.

- 840** *Oryza sativa*, Linn., GRAMINEÆ.

RICE.

Vern.—*Ura, arrus*, ARAB.; *Biranji*, PERS.; *Chávni*, HIND.; *Chawal*, DEC.; *Arishi*, TAM.; *Biyyam*, TEL.; *Ari*, MAL.; *Akhi*, KAN.; *Chál*, BENG.; *Tandulam*, SANS.; *Tandula*, MAR.; *Chokha*, GUZ.; *Hal*, CINGH.; *San, chán*, BURM.; *Bhátu, dhangara*, SIND.

Cultivated extensively throughout India.

The staple food of India; on an analysis it is found to contain 85 per cent. of starch. The husked seeds and the flour form the officinal parts. They act as a demulcent and diuretic. They are occasionally used in diseases of the urinary organs and catarrh; also externally as an application to burns and scalds.

Os.

- 841** BONE.

Made into charcoal. See Carbon.

- 842** Ovum.

Egg.

Vern.—*Bais, baisah*, ARAB.; *Tukhme murgh*, PERS.; *Andd*, HIND., BENG., DEC.; *Baida*, BOM.; *Muttai*, TAM.; *Guddu*, TEL.; *As*, BURM.

The yolk is useful for debilitated patients mixed with milk, &c. White of egg is an antidote for corrosive sublimate poisoning.

OXALSI.

- 843** *Oxalis corniculata*, Linn., GERANIACEÆ.

INDIAN SORREL.

Vern.—*Chalmori*, HIND.; *Surchi, khatta mitthé*, PS.; *Amrdi*, BENG.; *Amilalosika*, SANS.; *Palakiri*, TAM.; *Pallachintia*, TEL.

Found throughout the warmer parts of India and Ceylon, ascending the Himalaya to 7,000 feet.

The leaves are considered cooling, refrigerant, and stomachic. The fresh juice expressed from them is said to relieve intoxication from *dhatu*; it is useful in dysentery and prolapsus of the rectum. (U. C. Dutt.)

OXYRIA.

Oxyria reniformis, Hook., POLYGONACEÆ.Vern.—*Amlu*, PB.

844

Common in the Punjab Himalaya, at from 10,500 to 12,500, and in Tibet to 15,000 feet.

In Chumba it is eaten raw and in *chatni*, and is considered cooling, and in Kanawár it is known as a medicine. (*Stewart.*)

OXYSTELMA.

Oxystelma esculentum; Br., ASCLEPIADEÆ.

845

Vern.—*Gharote*, PB.; *Guray kheeres*, *dhoodkhee*, SIND.; *Doodhbutta*, BENG., HIND.

A twining perennial, found throughout the plains and lower hills of India, from the Punjab to Ceylon, Assam, Pegu, and Tenasserim.

A decoction of the plant is used as a gargle in aphthous ulcerations of the mouth and in sore-throat. The milky sap forms a wash for ulcers in Sind. In combination with turpentine it is prescribed for itch.

Pad Bahere.

846

PÆDERIA.

Pæderia foetida, Linn., RUBIACEÆ.

847

Vern.—*Gandhali*, *gundali*, HIND.; *Gundo-bhadali*, BENG.; *Prasrani*, SANS.

An extensive climber, met with in Central and East Himalaya, ascending to altitude 5,000 feet, and extending southward to Malacca and westward to Bengal and Assam.

The roots are used in native medicine as an emetic (*Roxburgh*). The decoction prepared of the leaves is considered wholesome and nutritive for the sick and convalescent. The whole plant is regarded as a specific for rheumatic affections, in which it is administered both internally and externally.

PÆONIA.

Paeonia Emodi, Wall., RANUNCULACEÆ.

848

THE PEONY ROSE.

Syn.—*P. OFFICINALIS*, *H. f.* & *T.*Vern.—*Mamekh*, PB.; *Ud-salap*, HIND.; *Udo-sidam*, BOM.; *Udesdilab*, SIND.

Found in the west temperate Himalaya, altitude 5,000 to 10,000 feet, from Kumaun to Hazara.

The tubers of this plant are highly esteemed as a medicine for uterine obstructions, colic, bilious obstructions, dropsy, epilepsy, convulsions and hysteria. *Ud-salap* is generally given to children as a blood-purifier. It was a common belief in ancient times, and it is so even now among the peasantry of Europe, that peony root, if worn by children round their necks, has the power of preventing epileptic attacks. If taken in full doses, the drug produces head-ache, noise in the ears, confused vision and vomiting. (*Dymock.*) The infusion of the dried flowers is highly valued as a remedy for diarrhoea. Seeds are emetic and cathartic.

PAPAVER.

Pale catechu. See *Uncaria Gambier*, Roxb., RUBIACEÆ.

Palmyra Palm. See *Borassus flabelliformis*, Roxb., PALME.

PANAX.

- 849 **Panax Ginseng**, C. A. Meyer., ARALIACEÆ.

CHINESE GINSENG.

"Ginseng is regarded by the Chinese as the most potent of restoratives, and the finer qualities realize extravagant prices. Its medicinal value appears, however, to the European practitioner entirely over-rated, the root being simply mucilaginous, aromatic, and slightly bitter and saccharine. (*D. Hanbury, Science Papers.*)

P. Pseudo-ginseng, Wall. See *Aralia Pseudo-ginseng*, Benth.

- 850 **P. quinquefolium**, Linn.

AMERICAN GINSENG.

Vern.—*Ginseng*.

Mr. Birdwood mentions this plant amongst his drugs, but says nothing about its medicinal properties.

PANDERIA.

- 851 **Panderia pilosa**, Fisch & Mey., CHENOPODIACEÆ.

Vern.—*Kaura ro, bét*, PB.

Grows abundantly in Central and South Punjab, Trans-Indus and Tibet, altitude 8,000 to 12,000 feet.

The plant is officinal.

PANICUM.

- 852 **Panicum antidotale**, Rott., GRAMINEÆ.

Vern.—*Male, shamékha*, PB.

A tall grass, found in many parts of the Punjab plains and Siwalik tract.

The smoke of this plant is used to fumigate wounds (*J. L. Stewart*).

- 853 **P. miliaceum**, Linn.

Vern.—*Chiná ghás, cheena*, HIND., BENG.; *Vreekib-heda, unoo*, SANS.; *Wári, shamakh*, DEC.; *Varagu*, TAM.; *Worgá*, TEL.; *Varisévá*, BOM.; *China, chinwa, chini, sálan*, PB.

Cultivated in many parts of India.

The grain is considered digestible and nutritious.

PAPAVER.

- 854 **Papaver Rhoeas**, Linn., PAPAVERACEÆ.

RED POPPY.

Vern.—*Lál-pót*, HIND., BENG.; *Rakta-posta*, SANS.; *Nabatul-khash-khashul-ahmar*, ARAB.; *Kokndre-surkh*, PERS.; *Shigappu-póstaká-chédi*, TAM.; *Erra-gasa-gasala-chettu*, TEL.; *Bhín-bin-am*, BURM.

Met with in Kashmir.

Red poppy petals are employed in pharmacy only for the sake of their fine colouring matter. (*Pharmacographia*.)

P. somniferum, Linn.

WHITE POPPY; OPIUM.

Vern.—*Nabítul-khash-khash*, ARAB.; *Kíknár*, PERS.; *Póst, khashkhásh-ká* HIND.; *Khash-khash-ká-jhár*, DEC.; *Gasha-gashé-chedi, póstaké* chodi, TAM.; *Gasagasdla-chetti, póstaka-yaya-chettu*, TEL.; *Kasha-kash ach-cheti*, MAL.; *Khasa-khasi-gidá*, KAN.; *Poshta, póstér-gachh, asim*, BENG.; *Akíphena*, SANS.; *Khasa-khasa-cha-jháda*, MAR.; *Khash-khas, nu-jháda*, GUZ.; *Bhinbin, bh-ain-bin*, BURM.; *Khasa-khasi-chenjháda* BOM.

The kind of poppy generally cultivated in India is with white flowers and white seeds. The cultivation of this plant is carried on to a considerable extent in the central tract of the Ganges, covering an area about 600 miles long and 200 wide, and bounded by Dinagangore on the east, Hazaribagh on the south, Gorakhpur on the north, and Agra on the west, thus including within the specified limits the whole of the Behar Province and the Benares district. The next opium-producing region in India is what is embraced by the broad table-lands of Malwa and the slopes of the Vindhya hills.

The cultivation of the poppy plant is both curious and interesting, and the extraction of opium, the article being highly important on account of its extensive use both as a medicine and an intoxicant. "The cultivation of the poppy for opium dates from antiquity, and was carried on in Asia Minor, Italy and Greece in classical times. The spread of its culture through the nations of Asia appears to have been primarily due to the Arabs. It may be grown for this purpose in any warm country in suitable soil, but the yield of opium in temperate regions, though of equal quality, is small; at the present time the great opium-producing countries are India, China, Asia Minor, and Persia, where immense tracts of the best and the most fertile soil are occupied by poppy cultivation." (Bentley and Trimen.) The mode of cultivation, as adopted in India, may be briefly described as follows: On a fertile soil, which is generally in the vicinity of the villages, the cultivators, having previously reaped a harvest of maize or vegetables, during the rainy season, prepare the ground for the poppies. In some cases poppy forms the only crop taken throughout the year. Throughout the rains, the principal work of the cultivators consist in ploughing, destroying the weeds and manuring the soil. Having thus prepared the soil and brought the surface to a fine condition by dragging a heavy log or a short ladder over it in November the seed is sown broadcast. Again the soil is ploughed to bury the seed, and the field divided into squares measuring 10 feet each way, having channels between them for irrigation. The seeds take little less than a fortnight to germinate. The plants are weeded and thinned when they attain the height of 2 to 3 inches. About the middle of February, when the plant flowers, and the petals begin to fall, the cultivators are chiefly occupied in collecting the petals, which are made into cakes by heating them on an earthen vessel. The cakes are then classed according to their size and colour, and are intended to form the inner and outer coverings to the opium. A few days after, when the poppy capsules have become fully developed (the size of the capsule of the Indian poppy being only half of that of the English-grown plant), the process of extraction commences. The capsules are scratched by means of forked blades tied up in bunches. The incisions are generally made vertical, but in some parts of Bengal they are transverse. A milky white juice is observed to exude from the wounds, which soon becomes coated with a slight pellicle. The juice is allowed to flow during night, and early on the following morning it is collected by means of a sheet-iron scoop which sweeps over each of the incisions and scrapes off the deposits which are then collected

Economic Products of India.

into an earthen vessel. After this there are certain processes of purification by which the opium attains its proper consistence. It is then brought to the factory, examined as to its purity, colour, texture, fracture, aroma and consistence, weighed and kept in large wooden boxes, holding about 10 cwt.

As a medicine opium is generally used in the form of the tincture or powder. If taken in medicinal doses, it is primarily a stimulant, and secondarily a narcotic, anodyne and antispasmodic. In over-doses it acts as a powerful poison, causing sleep which passes into coma, attended by slowness of respiration, feeble pulsation, cold perspiration and contraction of pupils, followed by death. It directly affects the brain and the nervous system, and then indirectly every organ of the body. In inflammation it has been extensively used either alone or in combination with other medicines. In the advanced stages of fever it is highly valued, as it allays vascular and nervous excitement, and thereby induces sleep. In spasmodic affections, patients have been found to obtain immediate relief by a few doses of opium. In simple or cancerous ulceration of the stomach, diarrhoea and dysentery, and in the diseases of the genito-urinary organs, it is of the highest value. It is also highly esteemed as the most effectual remedy in tetanus, acute rheumatism and delirium tremens. It is also useful as an external application in various rheumatic, neuralgic and other painful affections, also in ophthalmia and other diseases of the eye. (*Pharm. of India.*) According to the Sanskrit writers, the poppy-seeds are demulcent and nutritive, and useful in cough and asthma. The capsules are regarded as light, astringent and narcotic. They promote talkativeness and destroy or diminish the sexual power. Opium is said also to be possessed of the same properties as the capsules. A preparation is made of opium with nutmeg, cloves, &c., and given in diarrhoea and cholera.

Papaw Tree. See *Carica Pappaya*, *Linn.*, **PAPAYACEÆ.**

Paper, blistering. See *Cantharis vesicatoria*, *Latreille*, **COLEOPTERA.**

„ **Litmus.** See *Rocella tinctoria*, *DC.*, **LICHENES.**

„ **Turmeric.** See *Curcuma longa*, *Linn.*, **SCITAMINEÆ.**

Pareira or Pari. See *Cissampelos Pareira*, *Linn.*, **MENISPERMACEÆ.**

PARMELIA.

Parmelia kamtschadalensis, *Esch.*, **LICHENES.**

Vern.—*Chalchalira, charcharila, atsneh, pat-tharke-phal, chalpuri, char-chubila.*

A lichen, found in the bazaars of the Punjab and of the North-West Provinces, obtained from the Himalaya, and used largely in calico printing, both in order to perfume the fabric and as a pale pink dye. Doubtless several species are used for these purposes. Ainslie says there are many in use in South India.

Medicinally they are used in native practice as mild tonics and antiperiodics. By hakims used in dyspepsia, vomiting, pain in the liver or womb, &c. (*Baden-Powell; Atkinson, &c.*)

-*Parmelia perlata*, Ach., and *P. perforata*, Ach.

Syn.—*LICHEN ROTUNDATUS*, Reitter in Ainslie's *Mat. Med.*, II, p. 170.

Vern.—*Khirdeus-sahar*, *bekgul-kayar*, ARAB.; *Gulesang*, PERS.; *Kulpas*, TAM.; *Patthar-ka-phul*, HIND., and DEC.; *Ratibaché*, TEL.; *Phattar-kd-phál*, DEC.; *Kalap-páth-chi*, *kalap-pú*, TAM.; *Dhondischaghála*, MAR.; *Kiyár-peon*, BURM.

Ainslie says that this plant has long been used by the Vytians of South India medicinally, and that they attribute to it a peculiar cooling quality and prepare with it a liniment for the head. The Indian Pharmacopæia mentions several instances where a poultice of this plant has been found efficacious as a diuretic placed over the renal and lumbar regions. It further suggests, however, that its virtue may be shewn in this respect to be little more than that of any ordinary warm poultice.

Stewart mentions a *Parmelia* (undetermined), common on rocks at various places in Chumba (North-West Himalaya) altitude 11,000 to 15,000 feet, which is there used as an external application to burns. Specimens of this plant, as also further information, would be interesting.

Patchouli. See *Pogostemon Patchouli*, *Pelletier*, LABIATE.

Pavia indica. See *Aesculus indica*, *Colebr.*, SAPINDACEÆ.

PAVONIA.

Pavonia odorata, Willd., MALVACEÆ.

Vern.—*Báld*, SANS.; *Hrivera*, BENG.; *Sugandha báld*, HIND.

Found in North-West Provinces, Sind, and Banda (*Edgeworth*), Western Peninsula, Burma and Ceylon.

The roots of this plant are fragrant and aromatic and possess cooling and stomachic properties; used in fever, inflammation and haemorrhage from internal organs.

Pearls and coral.

Pearl Barley. See *Hordeum distichon*, *Linn.*, GRAMINEÆ.

PEDALIUM.

Pedalium Murex, *Linn.*, SESAMEÆ.

Vern.—*Farid-báti*, *bará-gókhru*, HIND.; *Khasake-kabir*, ARAB.; *Khasake-kalán*, PERS.; *Bara-ghokru*, DEC.; *Peru-nerunji*, TAM.; *Enuga-pal-leru-mullu*, *peddapallérū*, TEL.; *Bara-ghokru*, BENG.; *Motito-ghokru*, GUZ.; *Ati-neranchi*, CINGH.; *Sule-gi*, BURM.

A common plant in many parts of the Madras Peninsula, especially near the sea. It is particularly abundant in Katfiwár and Guzerat.

The fresh leaves and stems, if agitated in cold water, change into a thick mucilage, which is highly valued by the people of South India as a medicine for gonorrhœa and dysuria. Its action as a diuretic is instantaneous and remarkable. The fruits are also described as demulcent and diuretic, and are largely used by the natives for that purpose. They are possessed of antispasmodic and aphrodisiac properties. The decoction of the fruit is useful in irritation of the urinary organs. The juice is a good gargle and the plant makes a good poultice. (*Dymock*.)

The juice is used in aphthæ as a local application. (*Dr. Emerson*.)

PEDICULARIS.

- 861 *Pedicularis Hookeriana*, Wall., SCROPHULARIACE.

Vern.—

Found on the Himalayas and in Kashmir and Kumaun.
Stewart mentions that some part of the plant is used medicinally.

- 862 *P. pectinata*, Wall.

Vern.—*Mickren*, Pb.

Common in the Punjab Himalaya from 5,000 to 12,000 feet.
In Kanawár the pounded leaves are given for haemoptysis. The plant is also officinal at Lahore.

PEGANUM.

- 863 *Peganum Harmala*, Linn., RUTACE.

Vern.—*Hurmul*, *harmal*, ARAB.; *Isband*, *ispand*, PERS.; *Spelane*, *harmal*, PB.; *Isband*, HIND., DEC.; *Shimai-asha vanai-virai*, TAM.; *Shima-gbranti-villulu*, TEL.; *Isband*, BENG.; *Hurmali*, *hurmalo*, *ispand*, BOM.

The seeds are known as *Isband Lahori*.

A bush 1 to 3 feet in height, much branched and densely clothed with leaves, met with in Kashmir, the Punjab, the North-West Himalaya (Agra). Distributed to Arabia, North Africa, Hungary and Spain.

"In native works on *Materia Medica*, *Hurmul* is described as an alterative and purifying medicine in astrabilis, and also in diseases supposed to arise from cold humours, such as palsy, lumbago, &c.; it is also said to stimulate the sexual system both in the male and female, increasing the flow of milk and menses in the latter. For administration a concentrated decoction is mixed with sweet oil and honey, or the crushed seeds are boiled in wine down to one-fourth of the original bulk of the latter, and the mixture strained. The infusion or tincture acts as a stimulant emmenagogue and produces slight intoxication like *Cannabis sativa*. The tincture is sometimes used to procure abortion." (Dymock.) The seeds are considered narcotic and given in fevers and colic. The decoction of the leaves is given for rheumatism, and the powdered root, mixed with mustard oil, is applied to the hair to destroy vermin.

ellitory of Spain. See *Anacyclus Pyrethrum*, DC., COMPOSITE.

PENÆA.

- 864 *Penaea mucronata*, Linn., PENÆACE.

HEART-LEAVED SARCOCOLLA.

Vern.—*Unseeroot*, *kunjadeh*, ARAB.; *Ghost-khore*, PERS.

"A shrub indigenous in Arabia, Persia and North Africa, from which is obtained a subviscid, sweetish and somewhat nauseous gum-resin" (Murray).

The gum-resin, as its name signifies, has the power of agglutinating wounds. It was also believed in ancient times to have cathartic properties. In modern practice it is used as an external application to sloughing ulcers, and as a cathartic and anthelmintic (Murray).

Sarcocolla. See under *Sarcocolla*.

PENICILLARIA.

Penicillaria spicata, Willd., GRAMINEÆ.

Genera Plantarum reduces PENICILLARIA to PENNSETUM.

Vern.—*Bajra*, PB.; *Kambu*, TAM.; *Gantelu sajjalu*, TEL.

Largely cultivated in some parts of the Punjab plains; and in high and dry tracts, south from Rawal Pindi, constitutes the chief cereal crop. The grain is considered heating.

Pennisetum italicum, R. Br. See *Setaria Italica*, Beauv., GRAMINEÆ.

865

PENTAPETES.

Pentapetes phœnicea, Linn., STERCULIACEÆ.

Vern.—*Gul dupharia*, PB.

Found throughout the hotter parts of India, from the Punjab to Burma and the western Peninsula.

The fruit is officinal.

866

PENTATROPIS.

Pentatropis spiralis, DCNE., ASCLEPIADEÆ.

867

Syn.—*P. MICROPHYLLA*, Wall.

Vern.—*Ambarvel*, *van veri*, *ark pushpi*, PB.; *Singarota*, BOM.

Found in the Punjab and Sind, eastward to the Jumna river.

The flowers are officinal in the Punjab.

Pepper, Black. See *Piper nigrum*, Linn., PIPERACEÆ.

Peppermint. See *Mentha piperita*, Linn., LABIATEÆ.

PERISTROPHE.

Peristrophe bicalyculata, Nees., ACANTHACEÆ.

868

Syn.—*Justicia BICALYCULATA*, Wight.

Vern.—*Ghatipitta papada*, MAHR.; *Atreelal*, HIND.; *Naspat*, SIND.

An erect annual, generally found in waste places in Malabar, Sind, Bifuchistan, Arabia and the Deccan.

According to Rheeede the whole of the plant, macerated in an infusion of rice, is said to be a useful remedy in poisonous snake-bites. Mr. Shakham Arjun, in his *List of Bombay drugs*, says that this plant is supposed to have the properties of *Fumaria parviflora* and is used in its stead, but has not the bitterness of that plant. •

Petroleum.

869

PEUCEDANUM.

Peucedanum graveolens, Benth., UMBELLIFERAÆ.

870

DILL.

Syn.—*P. SOWA*, KURS.; *ANETHUM SOWA*, ROXB.; *A. GRAVEOLENS*, LINN.

Vern.—*Soya*, *sowa*, HIND.; *Susa*, *shopha*, *shopoo*, *sonf*, *shephu*, BOM.

Shoyikira-virai, *satakuppi-virai*, TAM.; *Misreyā*, SANS.; *Skood*, PEKS.
Found throughout tropical and sub-tropical India. •

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PHELIPÆA

"Dill seed is much esteemed by the natives of India, who use it as a condiment and medicine. An infusion of the dill seeds is given as a cordial drink to women after confinement. The leaves, moistened with oil, are used as a stimulating poultice or suppurative. Mahomedan writers describe *shibbit* as resolvent and deobstruent, carminative, diuretic and emmenagogue." (Dymock.)

PHÆNOPUS.

- 871 Phænopus, sp., COMPOSITE.

Vern.—*Jankhli*, PB.

"A small herb which grows at from 2,000 to 2,500 feet in the Salt Range, where it is given in colic." (F. L. Stewart.)

Pharbitis nil, Chois. See *Ipomoea hederacea*, Jacq., CONVOLVULACEÆ.

P. sp. See *Ipomoea cymosa*, Roem. & Sch. and *I. sepiaria*, Koen.

PHASEOLUS.

- 872 Phaseolus aconitifolius, Jacq., LEGUMINOSÆ.

Vern.—*Moth*, HIND.; *Matha*, SIND.

Himalayas to Ceylon, tropical region, up to 4,000 feet in the North-West.

The pulse is supposed to be heating.

- 873 P. Mungo, Linn.

Vern.—*Mung*, *mungi*, *múji*, PB.; *Hari mung*, HIND.; *Háli mung*, BENG.

Wild and universally cultivated in the plains throughout India, ascending to 6,000 feet in the North-West Himalayas.

The pulse is used as a diet in fever. Considered by natives cool, light and astringent, but is difficult to digest. Used to strengthen the eyes.

- 874 P. Mungo, Linn., var. *radiatus*, Linn.

Syn.—P. ROXBURGHII, W & A.

Vern.—*Mash*, *máh*, PB.; *Maga*, SIND.; *Mash-kalai*, BENG.

Cultivated as a hot weather crop in the plains, and to 6,500 feet in the hills.

The seeds are much used in medicine, both internally and externally in paralysis, rheumatism and affections of the nervous system. Also used in fever, considered hot and tonic, useful in piles, paralysis and affections of the liver; also in cough and rheumatism. Stewart says that of all pulses this is the most heating and apt to give colic.

8

PHELIPÆA.

- 875 Phelipæa calotropidis, Walp., OROBANCHACEÆ.

Vern.—*Khisa*, *kharlanne*, *sharid*, *khalatu*, *khurjin*, PB.; *Khalatra*, SIND

Grows in sandy places, Trans-Indus, in the Salt Range, in the Southern Punjab and parts of Umballa, Sirsa, &c., east of the Sutlej.

Dr. Stewart says that the bruised stem is applied to sores in horses.

Phenic Acid. See Acidum Carbolicum.

PHOENIX.

Phœnix dactylifera, Linn., PALME.

THE DATE PALM.

Vern.—*Khurma-yabīs*, ARAB.; *Khurmāt-khusk*, PERS.; *Khajér*, khaji, HIND.; *Pērich-chankay*, TAM.; *Karjára-káya*, TEL.; *Finsch-cham-kaya*, MAL.; *Kharjára*, KAN.; *Khdjér*, *khurma*, BENG.; *Kharjíra*, SANS.; *Kdréh*, GUZ.; *Jndi*, CINGH.; *Somblon-si*, BURM.

Cultivated and self-sown in Sind and South Punjab, producing the well-known fruit.

The fruits are used medicinally as demulcents and expectorants.

They are nutrient, and said to be aphrodisiac. Used in fevers. Continued use is said to produce soreness of the gums. The seeds are made into a kind of coffee in Sind. (Dr. Emerson.)

P. sylvestris, Roxb.

THE WILD DATE PALM.

Vern.—*Khajúr*, *sandálé-ká-ptr*, HIND.; *Sandálé-kd-jhár*, DEC.; *Ishan-chedi*, TAM.; *Itu-cheti*, TEL.; *Káttinta*, *inte-cheti*, MAL.; *Fanglár-khajér*, *khajád*, BENG.; *To-somblón-si*, BURM.

A tree wild and cultivated throughout India.

The kernels of the fruit are used to relieve thirst.

Phosphorus.

PHYLLANTHUS.

Phyllanthus Emblica, Linn., EUPHORBIACEÆ.

Syn.—*EMBLICA OFFICINALIS*, Gaertn.

Vern.—*Daula*, *amla*, *Bonla*, *amlīka*, *aura*, HIND.; *Ambliy*, ARAB.; *Amolak*, PERS.; *Ambul*, *ambli*, PB.; *Amalaki*, SANS.; *Amla*, *ambolati*, *amulati*, *ámlaki*, BENG.; *Ambari*, GARO; *Amuki*, ASS.; *Neli*, *nellekai*, TAM.; *Shabju*, *síphiyu-si*, BURM.; *Anvala*, BOM.

A moderate-sized tree in the dry forests of India and Burma.

The fruit of this plant constitutes the *Emblic myrrabolan*. It is in the fresh state possessed of purgative properties, but is used when dry as an astringent in bowel complaints and haemorrhages. It is said to be useful in diarrhoea and dysentery, and is regarded as possessing antiscorbutic properties. It contains a large proportion of gallic acid. The flowers are employed as a refrigerant and aperient. The bark is astringent. An extract has been obtained from the root by decoction and evaporation, used both for medicinal purposes and in the arts. The fresh juice is cooling, refrigerant, diuretic, and laxative. The exudation from the incisions on the fruit is used as an external application in inflammation of the eye. (Pharm. Ind.; Hindu Mat. Med.)

Is considered a nervine tonic. Fruits used as an adjunct to hair-dyes, and as a hair-wash. (Dr. Emerson.)

P. Niruri, Müll.-Arg.

Vern.—*Bhūin-anvalah*, HIND., DEC.; *Kishkáy-nelli*, TAM.; *Nela-usirika*, TEL.; *Kishá-nelli*, MAL.; *Kiranelli-gidá*, KAN.; *Misiphiyu*, BURM.; *Bhūi avali*, BOM.

Found in Travancore and Bengal.

PHYTO-LACCA.

The root, leaves, and young shoots are used medicinally as deobstruent and diuretic. The root and the leaves, either in the form of powder or decoction, are used in jaundice or bilious complaints. The young shoots in infusion are given in dysentery. The leaves are stomachic. Held in esteem by the natives in the treatment of gonorrhoea and other genito-urinary diseases.

881 ***Phyllanthus urinaria*, Linn.**

Medicinal properties are similar to those of the preceding plant.

PHYSALIS.882 ***Physalis flexuosa*, Link. See *Withania Somnifera*, Dun., SOLANACEÆ.*****P. indica*, Lam., SOLANACEÆ.**

Vern.—*Habbi kaknaj*, Ps.

Cultivated in the Punjab.

The fruit is considered tonic, diuretic, and purgative.

883 ***P. minima*, Linn., var. *indica*.**

Syn.—*NICANDRA INDICA*, Roem. & Sch.

Vern.—*Habbi kaknaj*, Ps.

Found throughout India.

The fruit is officinal, being considered tonic, diuretic, and purgative. (Dr. Stewart.)

P. somnifera*. See *Withania somnifera*, Dun., SOLANACEÆ.*Physic-nut plant. See *Jatropha Curcas*, Linn., EUPHORBIACEÆ.****PHYSOSTIGMA.*****Physostigma venenosum*, Balf., LEGUMINOSÆ.****CALABAR BEAN PLANT.**

A large perennial climber, native of an apparently restricted portion of west tropical Africa, near the mouth of the Niger and Old Calabar, in the Gulf of Guinea.

The seeds are described in the Pharmacopœia of India as a "powerful sedative of the spinal nervous system, producing in over-doses paralysis of the lower extremities and death by asphyxia, and in still larger doses by paralysis of the heart. Highly poisonous. Applied locally to the eye, it possesses the peculiar property of rapidly inducing contraction of the pupil ; prescribed internally in tetanus, chorea, and other nervous affections characterised by exalted sensibility of the spinal nervous system. Its chief use, however, is as a local application in diseases and injuries of the eye, and here it is especially valuable."

PHYTOLACCA.***Phytolacca decandra*, Linn., PHYTOLACCACEÆ.**

Vern.—*Lébar, bárgá, dentárd, rinsdg.*

Found in the Punjab Himalaya from 3,500 to 8,000 feet, and cultivated east of Simla.

"The fruit when eaten produces cerebral symptoms, and the leaves produce delirium.

PICRCENA.**Picrcena excelsa, Lindl., SIMARUBÆ.****THE OFFICINAL OR JAMAICA QUASSIA TREE.**

A native of the West Indies.

Quassia is a pure bitter tonic and stomachic, useful in debility and febrile diseases; and in atonic dyspepsia it is a remedy of established merit. Sold by all chemists. See also Picrasma.

PICRASMA.**Picrasma quassoides, Benn., SIMARUBÆ.**

887

Syn.—*NIMA QUASSIOIDES*, Ham.; *Pharm. Ind.* 50.Vern.—*Bharangi*, or *baringi*, HIND.; *Puthorin*, *bera*, *máthá*, *bering*, *pesho*, *khashbar*, *birgo*, PB. HIMALAYAN NAMES.

A large scrambling shrub, with stout, often spotted, branches, common in the sub-tropical Himalaya, from Jamu to Nepal; ascending from 3,000 to 8,000 feet in altitude.

Dr. Royle draws attention to the bark and root of this plant as quite as bitter as the Quassia of the West Indies, for which it would doubtless prove an excellent substitute. The *Pharmacopœia Indica* regards this bark as worthy of further attention. The leaves, Stewart says, are applied to itch. The plant is browsed by goats and sheep, and the red fruits are sometimes eaten by the hill-people.

PICRORHIZA.**Picrorhiza Kurroa, Royle, SCROPHULARIACEÆ.**Vern.—*Kathi*, HIND., BENG.; *Katuka*, *katurohini*, SANS.; *Karrá*, PB.; *Kálíkutaki*, *bdakadé*, BOM.

A plant of Kumaun and other parts of North India.

The root of this plant is described as bitter, acrid and stomachic, and in large doses a moderate cathartic. It is used in fever and dyspepsia and in many purgative preparations. Antiperiodic virtues have been attributed to the root by Dr. Tripe. About two drachms of the powdered root, with sugar and warm water, act as a gentle aperient. Mr. Moodeen Shariff recommends it as a powerful bitter tonic and anti-periodic. (*Pharm. of India*; *Dymock*; *U. C. Dutt.*)

PIERIS.**Pieris ovalifolia, D. Don., ERICACEÆ.**Syn.—*ANDROMEDA OVALIFOLIA*, Wall.Vern.—*Ayatta*, *eilan*, *ellal*, *arur*, *arwán*, PB.; *Aydr*, HIND.; *Anjir*, *angiar*, *jagguchal*, NEPAL; *Piasay*, BHUTIA; *Kangshior*, LEPCHA.

A small deciduous tree of the outer Himalaya, from the Indus to Assam usually between 4,000 and 8,000 feet; Khásia Hills, and hills of Martaban from 5,000 to 7,000 feet.

"The young leaves and buds are poisonous to goats; they are used to kill insects, and an infusion of them is applied in cutaneous diseases." (Gamble.)

Pimento. See Eugenia Pimenta, DC., MYRTACEÆ.

PIMPINELLA.

890 Pimpinella Anisum, Linn., UMBELLIFERA.

COMMON ANISE.

Vern.—*Rasīyānaj, shamār, ARAB.; Rasiyanah bddiyān, PERS.; Sōñj, HIND., DEC.; Perun-shiragam, shōmbū, TAM.; Pedda-jilakara, TEL.; Perin-chirakam, MAL.; Doddā-irage, sōmpē, KAN.; Mitha-jīrd, BENG.; Sōmp, MAR.; Samusaba, BURM.; Anisūn, BOM., PB.*

“Introduced into India by the Mahomedans from Persia, whence the supply from the Bombay market still comes. Anise is now grown in Northern India.” (Dymock.)

“It is an agreeable aromatic, carminative, and stimulant, and is supposed, though without sufficient evidence, to promote the secretion of milk and some of the other secretions. It is employed in flatulent colic, more especially in that of children, and as a corrugent of griping cathartics.” (Bentley and Trimen.)

P. crinitam, Boiss. See Psammegeton binternatum, Edgw., UMBELLIFERA.

P. involucrata, W. & A. See Carum Roxburghianum, Benth., UMBELLIFERA.

PINUS.

Pinus Deodara, Roxb. See Cedrus Deodara, Loudon, CONIFERA.

P. Gerardiana, Wall., CONIFERA.

Vern.—*Chilgusa, jalghosa, AFG.; Chiri, prita, mirri, kashti, HIMALAYAN NAMES; Ri, rhi, KANAWAR; kunnuchi, koniānchi, W. TIBET. The seeds, neosa.*

A moderate-sized tree of the inner dry and arid North-West Himalaya; found in isolated areas of no great extent, generally between 6,000 and 10,000 feet. Mountains of North Afghanistan and Kafirsitan.

The seeds and an oil extracted from them are used medicinally. The oil is highly esteemed for its stimulant properties and power of healing ulcers.

892 P. longifolia, Roxb.

Vern.—*Chir-hd-pēr, saral, HIND.; Chil, chir, PB.; Salla, sapin, kolan, GURHWAL and KUMAUN; Sarala, SANS.; Alakus-sandhar, ARAB.; Samagho-sanōber, PERS.; Chir, DEC.; Shurul-dvadari, TAM.; Dēvar-dāri-chottu, TEL.*

A large gregarious tree of the drier Himalayan slopes, met with as low down as 2,000 feet, and ascending to about 7,000.

The resin obtained by incision, in both its pure and impure state, and known in Bengal under the name *Gandhbirosa* (in Sanskrit *Sarala, drava srivasa, kshira*), is used internally as a stomachic, and externally as a plaster, and is applied to buboes and abscesses for suppuration. The wood is considered stimulant, diaphoretic, and useful in burning of the body, cough, fainting, and ulcerations.

893 P. palustris, Lambert.

THE SWAMP PINE.

Used, as also *P. Toda, Linn.*, and sometimes *P. Pinaster, Aiton*, in the preparation of Oil of Turpentine. A terebinthinate stimulant

PIPER.

largely used as an external application, being a much-valued rubefacient and counter-irritant. Its action is primarily stimulant, especially to the genito-urinary organs; secondly, sedative, antispasmodic, and astringent. In large doses it is purgative, and for this purpose chiefly given as an enema.

Resin is the residue after distillation of the various species of pine. It is largely used in plaster and ointment. See P. Tæda.

Pinus sylvestris, Linn.

894

THE SCOTCH FIR.

Indigenous in the highlands of Scotland, Denmark, Norway, and other countries of Europe.

A bituminous liquid obtained from the wood by destructive distillation is said to be stimulant, and to act chiefly on the mucous membranes and the cutaneous surface. It has been prescribed in skin diseases with success. In typhoid fever, habitual constipation, and chronic bronchitis it has been found useful. The vapour from the heated tar is of great service in phthisis and other chronic pulmonary diseases. It is also regarded as diuretic and diaphoretic. It is used externally in the form of ointment in chronic skin diseases, such as leprosy, ringworm, psoriasis, &c., and also in foul and obstinate ulcers. It is also employed in veterinary medicine.

P. Tæda, Linn.

895

THE FRANKINCENSE PINE.

A large tree, 50 to 100 feet in height, found in the Southern United States.

In the Indian Pharmacopœa the concrete turpentine obtained from the plant has been described as a stimulant which is never prescribed internally.

PIPER.

Piper angustifolium, R. & Pav., Piperaceæ.

896-

Syn.—ARTHANTE ELONGATA, Miq.

A shrub, native of Peru, Brazil, and New Granada. The dried leaves are imported into India and sold by chemists.

They are astringent and locally applied as a powerful styptic, used in haematemesis, haematuria, haemoptysis, and other forms of passive haemorrhage. For the purpose of arresting superficial haemorrhage the powdered leaves are very efficacious.

P. Betle, Linn.

897

Syn.—CHAVICA BETLE, Miq.

Vern.—Pón, HIND.; BENG.; Támbula, SANS.; Tanból, ARAB.; Bargé-tanból, PERS.; Vettilee, TAM.; Tamal-pakoo, TEL.; póna, nagavela, BOM.; Vetta, MAL.; Kén-yoe, BURM.

Cultivated throughout India for its leaves.

The leaves of this plant, together with lime, Catechu and betelnut, and also certain spices, such as cardamoms, nutmegs, cloves and camphor, are made into little packets called pón, generally chewed by the natives of India, especially after meals. Betel-leaf thus chewed produces a stimulating and exhilarating effect. The juice of the leaves is also regarded as a valuable stomachic. In Hindú medical works the leaves are described as aromatic, carminative, stimulant, and astringent,

PIPER.

and also aphrodisiac. In catarrhal and pulmonary affections of children the leaves, warmed and smeared with oil, are applied in layers over the chest. A similar application gives relief in congestion and other affections of liver. Leaves warmed and applied to breasts in layers are said to arrest the secretion of milk. They are similarly applied to glandular swellings as an absorbent.

Used to correct foul breath, and as slightly astringent mouth-wash. The best *pán* comes from Banda district, called 'Mahobah'; the next quality is called *magui-pán*, from Behar districts; and the third quality is the Bengal or *Bangla-pán*. (Dr. Emerson.)

Piper Chaba, Bl.

Syn.—CHAVICA CHABA, *Miq.*

Vern.—*Chab*, HIND.; *Chai, choi*, BENG.; *Chatika, chuvi*, SANS.

A native of the Moluccas, cultivated in India for the sake of its fruit, which constitutes the Chaba of the *India Materia Medica*.

The fruits are considered stimulant, anticatarrhal and carminative, and also used as an expectorant. *Taleef Shereef* mentions its use in haemorrhoidal affections.

899 **P. Cubebe, Linn. f.**

CUBEBS.

Syn.—CUBEBA OFFICINALIS, *Miq.*

Vern.—*Kabab-chini*, HIND., PERS., DEC.; *Hababah, kabul-oordi*, ARAB.; *Kabab-chini*, BENG.; *Vámilaku*, TAM.; *Tóka, miriyálu*, TEL.; *Kabab-chini*, MAR.; *Vdl-mulake*, MAL.; *Vámlagun*, CINGH.

Native of Java and the Moluccas.

Cubebs act as a stimulant, chiefly on the mucous membranes and the genito-urinary organs. They are known to be a valuable remedy for gonorrhoea, leucorrhœa, gleet, and vaginal discharges, and also for bronchitis, being usually administered in the form of a powder. In chronic inflammation of the prostate gland, haemorrhoids, and in pulmonary affections, they have been employed with great success.

Oil of cubebs is generally regarded as stimulant and carminative.

900 **P. dichotomum, R. & Pav.**

Ainslie states that the aromatic roots of this plant are prescribed in dyspepsia. (*Pharm. Ind.*)

901 **P. longum, Linn.**

LONG PEPPER.

Syn.—CHAVICA ROXBURGHII, *Miq.*

Vern.—*Pipul mal*, HIND.; *Pipul*, BENG.; *Pippali*, SANS.; *Pil-fil-undaris*, PERS.; *Típili*, TAM.; *Pipul*, TEL.; *Bangali-pim-pali*, BOM.; *Pei-khyen*, BURM.

A perennial shrub, indigenous to Nepal, East Bengal, Java, Malabar, Ceylon, and the Philippines. It is abundant in the woody hills of the Circars, as well as at the foot of the Himalayas. Cultivated extensively in Bengal and the Southern Presidency on account of its root and fruit or spike. (*Murray.*) It is at once distinguished from *P. nigrum* by its cordate and 5-nerved leaves.

The dried unripe fruit and the root are considered heating, stimulant, carminative, alterative, laxative, and useful in cough, hoarseness, asthma,

dyspepsia, paralysis, &c. An infusion of the fruit with several other ingredients is administered by native midwives to hasten the removal of the placenta after parturition. On the Coromandel Coast it is prescribed in infusion with honey in catarrhal affections. The Arabs consider it as a cardiac. It is now chiefly used as a spice and to some extent in veterinary practice. It has also been recommended in the treatment of Beri-beri.

Piper nigrum, Linn.

BLACK PEPPER.

Vern.—*Kala-marich*, HIND.; *Gol-marich*, BENG.; *Filfile-asvad*, *filfile-siyah*, PERS.; *Maricha*, SANS.; *Goolmireen*, SIND.; *Choka*, DEC.; *Milagu*, TAM.; *Miriyalu*, TEL.; *Kdlimiri*, BOM.

Black pepper is not of much importance as a medicine; it is described as acrid, pungent, hot, dry, carminative, and useful in intermittent fever, haemorrhoids, and dyspepsia. Externally it is used as a rubefacient in alopecia and skin diseases. It has also been employed in the form of a gargle in various affections of the throat. (U. C. Dutt; Pharm. Ind.) Its action as a stimulant is chiefly directed to the mucous membranes of the rectum and urinary organs. Black pepper has long been a popular remedy in India in the treatment of intermittent fevers. White pepper is prepared from this species by removing the black pericarp, thereby depriving the black pepper of part of its pungency. The finest white pepper comes from Tellicherry on the Malabar Coast; commercially it comes from Singapore.

902

PISONIA.

Pisonia aculeata, Linn., NYCTAGINÆ.

Vern.—*Baghachura*, BENG.; *Karu-indu*, TAM.; *Kunkipootri*, TEL.

A very common, strong, large, straggling shrub of South India and of the coast forests of Burma and the Andaman Islands.

The bark and the leaves are used as a counter-irritant for swellings and rheumatic pains.

903

PISTACIA.

Pistacia atlantica, Desf., ANACARDIACEÆ.

Vern.—*Tagho*, AFG.

"Yields mastic called *Rumi mastigi*, *Kundar Rumi*, in the bazars, of which Davies' Trade Report states that 5 maunds are annually imported via Peshawar. It is given for asthma and mixed in ointment, &c." (Stewart.)

904

P. cabulica, Stocks.

Vern.—*Kinjak*, *kasur*, SAHTI.; *Kundroo*, SIND.; *Shajratul-baq*, ARAB.; *Dár-dár*, PERS.

A small tree found in Afghánistán, Beluchistán and Upper Sind; yields a resin-like mastic in both the countries; called in Persian *Kundurín* and *Shakur Shirin* (Sweet Mastic). This plant is closely allied with the preceding species.

This tree has been mentioned in the Indian Pharmacopoeia, but its medicinal properties have not been described.

905

Pistacia

The *Pharmacographia* regards this and all the species of *Pistacia* here described as but extreme forms of one species. This opinion may most probably be correct, but as economic products they are distinct enough, and until carefully determined by Botanists, it seems desirable to retain them for the present as distinct.

906 *Pistacia integerrima*, Stewart.

Vern.—*Kaka, kakar, hangar, tunga*, P.^s; *Kakrasinghi*, BENG., HIND.

A tree with rough bark supposed to be indigenous in the Sulaiman Range and the outer Himalayas, extending as far east as Kumaun; altitude, 6,000 feet.

"The gall-like excrescences, black, hard, rugose, hollow, irregularly crooked, often 6 to 7 inches long, are formed in October on leaves and petioles. They are sold under the name of *Kakrasinghi*, and are used in native medicine, and useful in coughs, asthma, fever, and dysentery."

"The fruit of this tree is probably the *Sumak* of the Punjab bazars, used to strengthen digestion." (Brandis.)

907 *P. Khinjak*, Stocks.

Vern.—*Mastaki*, BOM.; *Khinjak, khanjuk, sharamna, sheawna, gewaun*, ARG. The galls are known as *Gul-i-Pista, bus-gauj*, BOM.

The tree grows in Afghánistán and Beluchistán. It supplies the most part of the mastic that is imported into Bombay.

"The Hindús consider this substance to be corroborant and balsamic, and take it in combination with *Salep* as a restorative. The Mahomedans in India use it instead of true mastich, which is an article of considerable importance in their *Materia Medica*, being considered detergent, astringent, and restorative, and of value as a masticatory, strengthening the gums and perfuming the breath." The galls are used in medicine as an astringent, as also in dyeing and tanning, especially for silk and the finer kinds of leather.

908 *P. Lentiscus*, Linn.

MASTIC TREE OR MASTICHE.

Vern.—*Romes mustike*, HIND.; *Kinniah*, PERS.

A shrub of the Mediterranean regions, imported into India. It yields the Mastic of Chios.

"As a medicine, mastich is now rarely employed. Dentists employ mastich dissolved in alcohol, ether, or chloroform for filling up the cavities of carious teeth." (Murray.) It possesses stimulant and diuretic properties.

909 *P. Terebinthus*, Linn.

THE TEREBINTH TREE.

Vern.—*Hub-ul-khirsu*, PERS.

Bellew states that this tree is common over the hills of Eastern Afghánistán. Stewart says that he met with a single tree on the eastern skirts of the Sulaiman Range. It yields the Chio or Cyperus turpentine.

In Afghánistán the fruit is considered warm, stimulant and stomachic, and prescribed in colic, dyspepsia; and the gum, called *aluk-ul-umbat*, is used as a masticatory and in various ointments. (Stewart.) Chian turpentine has stimulant and diuretic properties; formerly used for those purposes, but now rarely used as a medicine. It has lately been considered very valuable in cancer.

PLANTAGO

Pistacia vera, Linn.

910

THE PISTACHIO-NUT TREE.

Vern.—*Pista*, HIND., BENG.

The tree is indigenous to Persia, Syria, Bokhara, Mesopotomia, Turkistán and North Afghánistán, and is cultivated in Sicily and other parts of Southern Europe. The pistachio-nuts which are imported into India from Afghánistán form the fruit of this tree.

Pistachio-nuts are considered warm, and used in general debility. Oil obtained from the kernels acts as a demulcent and restorative. The bark is employed as a tonic in indigestion. (Amsterd. Cat.)

Used in nausea and vomiting. (Dr. Emerson)

PISTIA.**Pistia Stratiotes, Linn., AROIDEÆ.**

911

Vern.—*Taká-pánd*, BEN.; *Koombhika*, SANS.; *Anter-ghunga*, DEC.; *Agasatamaray*, TAM.; *Anterei-tamara*, TEL.

Found swimming on pools of stagnant water in most parts of India. Flowering time the hot season.

The plant is cooling and demulcent, and is given in dysuria. The leaves are made into poultices and applied to haemorrhoids. Mixed with rice and cocoanut milk they are given in dysentery, and with rose-water and sugar in cough and asthma. The root is laxative and emollient. (Rheede; Ainslie; Voight.)

PITHECOLOBIUM.**Pithecolobium bigeminum, Benth., LEGUMINOSE.**

912

Syn.—*JUGA BIGEMINA*, Willd.Vern.—*Kachlora*, HIND.

A large tree of the forests of the outer Himalaya from the Ganges eastward and of South India, giving a dark-coloured heartwood.

A decoction of the leaves is a medicine for leprosy and is used as a stimulant to promote the growth of hair. (Atkinson.)

Pix Burgundica. See *Abies excelsa*, Lamk., CONIFERÆ.

PLANTAGO.**Plantago amplexicaulis, Cav., PLANTAGINACEÆ.**

913

Vern.—*Gajipipali*, PB.

Grows wild in the Salt Range, &c., under 2,000 feet.

Said to be an astringent; useful in intermittent fever, and as an application to the eyes in ophthalmia; also used as an antidote for snake-poison; highly valuable in pulmonary affections. (Ainslie.)

P. Ispaghula, Roxb.

914

ISPAGHUL.

Vern.—*Isabghol*, HIND.; *Isabgul*, BENG.; *Ispaghool*, PERS.; *Spungar*, SIND.; *Basre-katima*, ARAB.

Found in Sind, Beluchistán, Afghánistán, Arabia, Egypt, and North-West India. Edgeworth says that the plant is cultivated to a certain

PLUMBAGO

extent at Multan, but Dr. Stewart is of opinion that the plant is never cultivated in the Punjab.

The seeds have been made officinal in the Indian Pharmacopoeia. They are described as demulcent and mildly astringent, and useful in febrile, catarrhal, and renal affections. Chiefly used in diarrhoea and dysentery. The bruised seeds form a good emollient poultice. (*Pharm. Ind.*) The seeds yield to water a good deal of mucilage, and form a cooling demulcent drink which is prescribed in cases where emollients are required. A slight degree of astringency and some tonic property may be imparted to the seeds by application of a moderate degree of heat, and it is said that this remedy cures the chronic diarrhoea of European and native children on the failure of other medicines. (*Bentley & Trimen.*)

- 915 Plantago major, Linn., var. *asiatica*.**

Vern.—*Luhuriya*, HIND.; *Gul*, *isufgol*, PB.

Wild in the Siwalik tract and Punjab Himalaya to 11,000 feet, and occurs in the plains at Peshawar, &c.

In Lahoul the leaves are applied to bruises.

Plantain. See *Musa sapientum*, Linn., SCITAMINEÆ.

PLATANUS.

- 916 Platanus orientalis, Linn., PLATANACEÆ.**

THE PLANE TREE.

Vern.—*Bain*, *béna*, *chinár*, *chanár*, KASHMIR, PB.; *Chinár*, PERS., AFG.

A large deciduous tree, cultivated in the North-West Himalaya east to the Sutlej, ascending to 8,300 feet in Ladak. Indigenous to Greece, Macedonia, Armenia, and North Persia. The tree is chiefly valued for its wood, but it is also much admired as an ornamental tree, attaining a great size and immense age.

Mr. Honigberger says that the bruised leaves are applied to the eyes in ophthalmia, and the bark boiled with vinegar is given in diarrhoea, being slightly astringent.

PLECTRANTHUS.

- 917 Plectranthus rugosus, Wall., LABIATE.**

Vern.—*Bái*, *solei*, *písmár*, PB.

A small shrubby plant, abundant in the Punjab Himalaya from 3,000 to 9,000 feet, and occurring in the Salt Range.

The plant is used as bedding to keep off fleas. (Stewart.)

Plum Tree. See *Prunus communis*, Huds., var. *domestica*, ROSACEÆ.

PLUMBAGO.

- 918 Plumbago coccinea, Boiss., PLUMBAGINÆ.**

Syn.—P. ROSEA, Linn.

Vern.—*Rakta-chittra*, *lal-chittra*, HIND.; *Rakto-chítá*, BENG.; *Rakta-chitraka*, SANS.; *Chittarmool*, *shitaraj-ahmar*, ARAB.; *Shitaraho-shurkh*, PERS.; *Lal-chitramál*, DEC.; *Shivapú-chittira*, TAM.; *Errachitra*, TEL.; *Kin-khem-ml*, BURM.

A shrubby perennial, native of India, and cultivated in gardens.

The vesicant properties of the root of this plant were known to the old writers, but it was O'Shaughnessy who first tried this drug in between three hundred and four hundred cases and found out that the root-bark being rubbed with water into a paste and applied to skin raised blisters within twelve or eighteen hours; and that it can be used as a cheap substitute for Cantharides, with the additional advantage of causing no irritation of the genito-urinary organs. When administered internally it acts as a stimulant, and in large doses as an acro-narcotic poison. "It is one of the articles in use amongst the natives for procuring abortion. For this purpose, the scraped root-bark is introduced *per vaginam* into the *os uteri*." Death is often the inevitable consequence of the use of this substance in the manner specified. The root is also used as a powerful sialogogue. In South India, the dried root is highly valued as a remedy for secondary syphilis and leprosy. (Pharm. Ind.)

Plumbago rosea, Linn. See *P. coccinea*, Boiss.

P. zeylanica, Linn.

Vern.—*Chitrā, chita, chitarak*, HIND.; *Chitā*, BENG.; *Agni-shikka, chitraka*, SANS.; *Shitaraj*, ARAB.; *Shitaruk*, PERS.; *Charmul*, DEC.; *Ven-chittira*, TAM.; *Tella-chitra*, TEL.; *Kotuvili*, MAL.; *Sudu-nitul*, CINGH.; *Kn-khen-phiu*, BURM.; *Chitra*, BOM.

Common in Bengal, South India, and Kumaun hills.

"The root of *P. Zeylanica* is said to increase the digestive power, to promote the appetite, and to be useful in dyspepsia, piles, anasarca, diarrhoea, skin diseases, &c." (Hindu Mat. Med.) "A tincture of the root-bark has been employed as an antiperiodic. Dr. Oswald says that he has employed it in the treatment of intermittents with good effect. It acts as a powerful sudorific." (Pharm. Ind.)

PLUMBI.

Plumbi Acetas.

ACETATE OF LEAD.

Used as astringent and sedative in haemoptysis, haematemesis, and other haemorrhages. Useful in diarrhoea, dysentery, ulceration of stomach, and bronchorrhœa. Externally as a lotion it is employed in excoriations and inflamed surfaces, skin diseases and ophthalmia. Also as an injection in gonorrhœa and leucorrhœa.

P. carbonas.

WHITE LEAD.

Vern.—*Isfe daj*, ARAB.; *Isfadab, sufedab*, PERS.; *Safedah*, HIND., DEC., BENG.; *Vellaya basvam*, TAM.; *Sisa-basmam*, TEL.

Astringent locally, either ointment or powder, to excoriations, superficial ulcers, &c.

P. Iodidum.

IODIDE OF LEAD.

Alterative, used chiefly as ointment for scrophulous, glandular swellings, enlarged spleen, and skin diseases.

PAP PODO-
PHYLLOM.
923

Plumbi Nitras.**NITRATE OF LEAD.**

In solution used as astringent lotion to excoriations, fissured nipples, and other cutaneous affections.

924 **P. Oxidum.**

LITHARGYRE OR OXIDE OF LEAD.

Vern.—*Murd-sanj*, ARAB.; *Murd-sang*, PERS.; *Murdar-sing*, HIND., DEC., BENG.; *Mudarshing*, TAM.; *Mudr-sing*, TEL.

925 **P. oxidum rubrum.**

RED LEAD OR RED OXIDE OF LEAD.

Vern.—*Irinj*, ARAB.; *Sirinj*, PERS.; *Sindur*, HIND., DEC., BENG.; *Chenduram*, TAM.; *Chenduramu*, TEL.

PLUMBUM.

926 **Plumbum.**

LEAD.

Vern.—*Sisá*, HIND., BENG.; *Síak*, SANS.; *Anák*, ARAB.; *Surb*, PERS.; *Shish*, DEC.; *Iyam*, TAM.; *Síamu*, TEL.; *Igám*, CINGH.

Used in the preparation of salts of lead, which are used medicinally.

PLUMERIA.

927 **Plumeria acutifolia, Poirat, APOCYNACEÆ.**

Syn.—*P. ACUMINATA*, Roxb.

Vern.—*Khairchampa*, MAHR.

A small tree cultivated and naturalised in many parts of India, the fresh plant being used medicinally.

The leaves made into a poultice are used to dispel swellings. The milky sap is a rubefacient in rheumatic pains, and the root is a violent cathartic. The blunt-ended branches are used to promote abortion. (Surgeon S. Arjun, *Bombay Drugs*, p. 210.)

POA.

928 **Poa cynosuroides, Linn., GRAMINEÆ.**

Syn.—*ERAGROSTIS CYNOSEUROIDES*, Rom. & Sch.

Vern.—*Dab*, *durga*, HIND.; *Kusha*, BENG., SANS.; *Durbha*, *dubha*, TEL.

A grass, native of dry barren ground, met with in the Peninsula of India and Bengal. It is generally employed by the Brahmins in their religious ceremonies.

Used chiefly in the affections of the urinary organs and calculus.

PODOHYLLUM.

929 **Podophyllum emodi, Wall., BERBERIDÆ.**

Vern.—*Papri*, *baunbaki*, *chimyaka*, PB.

Found in the interior ranges of the Himalaya, altitude being 9,000 to 14,000 feet, from Sikkim to Hazara, descending to 6,000 feet in Kashmir.

Dr. Stewart says that the fruit of this plant is used medicinally at Lahoul. In the *Indian Pharmacopœia* this plant has been mentioned, and it has been said there that the medicinal properties are deserving of investigation.

***Podophyllum peltatum*, Linn.**

930

PODOHYLLUM.

A perennial shrub growing in moist, shady situations throughout the eastern side of the North American continent from Hudson's Bay to New Orleans and Florida.

Podophyllum is only employed for the preparation of the resin which is now much prescribed as a purgative. In small continued doses it acts as an alterative. It is useful in chronic hepatic affections, especially congestion and torpor of the liver, and in gouty, rheumatic, syphilitic affections.

POGOSTEMON.***Pogostemon patchouly*, *Pellit.*, LABIATE.**

931

Vern.—*Peholi*, HIND.; *Pachapát*, BENG.

A native of Silhet, Burma, and the Malayan peninsula.

The dried tops of this plant constitute the *Patchouli* of commerce. As a medicine it is not highly valued. Much used as a perfume.

Poinciana pulcherrima*, Linn. See *Cesalpinia pulcherrima*, Swartz.**Polanisia icosandra*, W. & A. See *Cleome viscosa*, Linn., CAPPARIDÆ.****POLIANTHES.*****Polianthes tuberosa*, Linn., LILIACEÆ.**

932

TUBEROSE.

Vern.—*Gulshabba*, HIND.; PB.; *Rajani-gandha*, BENG.

A native of Mexico or South America, cultivated in gardens in India, Ceylon, and Java. It is much prized for the fragrance of its flowers.

The bulbs are dried, powdered, and used medicinally in gonorrhœa.

POLYGALA.***Polygala crotalariaeoides*, Ham., POLYGALEÆ.**

933

Found in temperate Himalaya, altitude 4,000 to 7,000 feet, from Chumba to Sikkim and Khásia Mountains.

Used medicinally in catarrhal affections.

***P. Senega*, Linn.**

934

SENEGA OR SENEKA.

Native of United States of North America.

The dried root is stimulant, expectorant, diuretic, and emmenagogue, in large doses emetic and cathartic. It is useful in sub-acute and chronic affections of the lungs, in functional derangements of the heart, in dropsy, amenorrhœa, and dysmenorrhœa.

PORTFOLIO
BOMB.
935

Polygala telephiodes, Willd.

Met with in Western Peninsula, Carnatic, and Travancore.
Used medicinally in catarrhal affections.

POLYGONUM.

Polygonum aviculare, Linn., POLYGONACEÆ.

Vern.—*Endrane, bigbund, hunraj, Hind.; Kesra, vandakar, Pb.,; Miramati, Sans.*

Found in N. W. Himalaya, Kashmir, Punjab, and the Deccan.

^{On} Chumba the dried root is applied externally as an anodyne, and officinal in Kashmir. (Stewart.) The seeds are also said to be powerfully emetic and purgative.

P. barbatum, Linn.

Vern.—*Narri, Pb.*

Common in wet places in the Punjab plains, and to 3,500 or more feet in the hills.

The seeds are employed in Malabar and Canara to relieve the gripping pains of colic. (Dr. Stewart; Ainslie.)

P. Bistorta, Linn.

Vern.—*Maslen, bilauri, anjabar, Pb.*

Common at places in the Punjab Himalaya from 3,500 to 12,000 feet.

Is a useful astringent and said to be applied to abscesses; a decoction may be used in gleet and leucorrhœa as an injection; makes an excellent gargle in relaxed sore-throat and spongy gums, and an excellent lotion for ulcers. Mixed with Gentian it is given in intermittent fevers; also useful in passive haemorrhage and diarrhoea. (Dr. Stewart; Murray.)

P. nepalense, Meisn.

Vern.—*Sat balon, Pb.*

Common in the Punjab Himalaya from 3,000 to 9,500 feet.

In Kangra its leaves are applied to swellings. (Dr. Stewart.)

POLYPODIUM.

940 Polypodium quercifolium, L., FILICES.

Vern.—*Kadiapan or kadik-pan, Bom.*

A fern met with in Bombay and used medicinally in fevers. (Dymock.)

P. vulgare, Linn.

Vern.—*Bisfajj, asnasâl-kalb, ARAB.; Khankli, HIND.; Bisfayaj, DEC.*

Dr. Dymock informs me he has identified fronds of this plant amongst medicines imported into Bombay from Persia.

Is carminative; mixed with liquorice root is used in bronchitis and asthma. Natives mix this with Cassia pulp as a laxative in haemorrhoids. (Dr. Emerson.)

POLYPORUS,

Polyporus anthelminticus, Berkeley, FUNGI.

Vern.—*Wa-mo* (BAMBOO MUSHROOM) and *Than-mo* (WORM MUSHROOM).
BURM.

Indigenous in Tenasserim.

The *Pharmacopœia Indica* speaks very highly of a powder of this fungus, pronouncing it a specific for worms. "It produces no sensible effect on the system, but if followed on the third morning by a purgative the entozoa are expelled in a lifeless state." "Being without taste or smell, children take it readily." "It seems well worthy of further trials."

Specimens required from Burma, as also further particulars.

Pomegranate tree. See Punica Granatum, Linn., LYTHRACEÆ.

PONGAMIA.

Pongamia glabra, Vent., LEGUMI OSÆ.

Vern.—*Karany, karanjh, HIND., DEC.: Karanja, BENG.; Nactambla, SANS.; Pungan-maram, TAM.; Kanuga-chetiu, kranuga, TEL.; Kiramal, BOM.; Unnamaram, MAL.; Simisen, Timisen, BURM.*

Found in the Central and East Himalayas, extending to Ceylon and Malacca. It is commonly met with in the Concans.

"The seeds are used as an external application in skin diseases. The expressed oil of the seeds is used in these diseases as well as in rheumatism. A poultice of the leaves is applied to ulcers infested with worms." (*Hindu Mat. Med.*) Ainslie states that the juice of the root may be used as a wash for foul sores.

PONTEDERIA.

Pontederia vaginalis, Linn., PONTEDERIACEÆ.

Vern.—*Nanka, BENG.; Nirocancha, TEL.*

A native of the borders of the sweet-water lakes or marshy places, met with on the Coromandel Coast, in the Concans and in Bengal. It flowers during the rainy season.

The root is chewed for toothache, and the bark eaten with sugar for asthma. (Atkinson.)

Poppy. See Papaver Rhæas, Linn., and P. somniferum, Linn., PAPAVERACEÆ.

POPULUS.

Populus alba, Linn., SALICINEÆ.

THE ABLE OR WHITE POPLAR.

Vern.—*Chitta bagnu, safedar, jangle-frast, fras, chandn, PB.; Sperder, speldia, AFG.*

A large tree, wild and cultivated in the North-West Himalaya up to 10,000 feet, and extending to Afghánistán, Beluchistán, and on into Europe.

"Contains some salicine and acts as a tonic; used for purifying the blood and in skin diseases. Bark said to be useful in strangury." (Baden-Powell.)

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PORTU-

LACA. *Populus ciliata*, Wall.

946

" HIMALAYAN POPLAR.

Vern.—*Bangikat*, NEPAL; *Sungribong*, LEPCHA; *Grapipal*, KUMAUN; *Chelun*, SIMLA; *Safeda*, *bagnu*, *asan*, *pahari pipal*, PB.

A large deciduous tree of the Himalaya from the Indus to Bhutan, between 4,000 and 10,000 feet.

Occasionally used as a tonic stimulant and purifier of the blood. (Atkinson.)

947

P. euphratica, Oliv.

" Vern.—*Bahan*, SIND, PB.; *Pathi*, BRAHUI; *Hodung*, LADAK.

A large deciduous tree, generally found on the banks of the Indus in Sind, the upper valley of the Indus and its tributaries in Tibet.

The bark is given as a vermifuge.

948

P. nigra, Linn.

THE BLACK OR LOMBARDY POPLAR.

Vern.—*Safeda*, PB.; *Frast*, KASHMIR; *Prost*, *farsh*, *kramali*, *biáns*, HIMALAYAN NAMES; *Yarpa*, *yálatt*, LADAK.

A large tree commonly planted in Afghánistán, Kashmir, the plains and hills of the Punjab, up to 12,500 feet in Ladak.

"The bark is officinal in the plains, an *arak* being extracted from it which is considered depurative. (Dr. Stewart.)

PORTULACA.

949

Portulaca oleracea, Linn., PORTULACEÆ.

THE COMMON INDIAN PURSLANE.

Vern.—*Luniya-kálsah*, *loonuk-nonkha*, *khurfa*, *luniya* or *nuniya-shak*, HIND.; *Burro-lonia*, BENG.; *Kurphá*, BOM.; *Loni*, SANS.; *Buklut-ul-hakima*, *khurfa*, ARAB.; *Toork* (or *Turuk*), PERS.; *Coril keeray*, TAM.

Common in Sind and all over India.

"The fresh leaves are acid, and are prescribed when bruised as a cooling external application in erysipelas, and an infusion of them is given as a diuretic. In Arabic and Persian works two kinds of this plant are described, the large and the small. Both kinds are said to be cold and moist, and to have detergent and astringent properties. The plant and the seeds are recommended in a great many diseases of the kidneys, bladder, and lungs, which are supposed to be caused by hot or bilious humours. They are all praised as an external application in burns, scalds, and various forms of skin diseases." (Dymock.) Ainslie quotes Lunan's *Hortus Famaicensis* regarding this drug where it is described "a cooling and moistening herb and of use in burning fevers." Barham says that "bruised, and applied to the temples, it allays excessive heat, and such pains as occasion want of rest and sleep." (Ainslie.)

950

P. quadrifida, Linn.

Syn.—*P. meridiana*, Linn.; *Roxb. Fl. Ind. ii. 43.*

Vern.—*Nooniya*, *chhoto luniya*, BENG.; *Pail-kura*, TEL.; *Passelia-kírray*, TAM.; *Bárikaghola*, BOM.; *Chowli*, DEC.; *Upadyáki*, SANS.; *Budelut-ul-mobarik*, ARAB.

"The bruised fresh leaves of this acid and pleasant-tasted Purslane are prescribed by the Tamil practitioners as an external application in *atti* (Tam.), erysipelas. An infusion of them is also ordered as a

diuretic in dysuria to the extent of half a tea-cupful twice a day." (Ainslie's *Mat. Ind.* II. 286.)

Potassium.

POTENTILLA.

Potentilla nepalensis, Hook., ROSACEÆ.

Vern.—*Rattanjot*, PB.

A small procumbent plant not uncommon on the Himalayas; altitude 6,000 to 7,000 feet. Said by Stewart to be one of the plants which yield the root known as *Rattanjot*.

The roots are officinal, being considered depurative. They are used externally in Yínáni system, the ashes being applied with oil to burns. (Dr. Stewart.)

P. supina, Linn.

Common throughout the warmer parts of India from Kashmir to Malacca, and ascending to 8,000 feet in altitude. Distributed to Afghánistán and westward to the Atlantic, North Asia, and North Africa. Very common in the plains of Upper India, commencing in Behar, and passing northward; rare in Lower Bengal.

The roots are employed in Sind as a febrifuge. (Murray.) The roots of most Potentillas are rich in tannic acid. *P. Tormentilla*, a native of Europe, is a useful astringent, prescribed in England for diarrhoea as a domestic medicine, and also largely used in tanning leather.

Pothos officinalis, Roxb. See *Scindapsus officinalis* Schott., AROIDEÆ.

PRANGOS.

Prangos pabularia, Lindl., UMBELLIFERÆ.

Vern.—*Fiturasaliyun*, PB., BOM., SIND; *Kornal*, ARG.

Occurs wild in Ladak at 10,000 feet, Kashmir at 5,000 to 6,000 feet, and in Afghánistán around Chuznee.

The fruit or seed is said to be stomachic. The roots are a valuable remedy in the cure of itch. (Murray.) In Kashmir the fruit is used in decoction to cure the rot in sheep. The plant is considered heating. In Bombay the hakims use the fruit as stimulant and carminative. It is said to promote the expulsion of foetus. (Dymock.) It also possesses diuretic properties.

The roots are used as diuretic and emmenagogue by some hakims. (Dr. Emerson.)

PREMNA.

Premna integrifolia, Linn., VERBENACEÆ.

Syn.—*P. SERRATIFOLIA*, Linn., as in Roxb. *Fl. Ind.* iii, 77; *P. SPINOSA*, Roxb.

Vern.—*Arni*, HIND.; *Ganiari*, *bhut-biraro*, BENG.; *Gineri*, NEPAL; *Gan-*
nsari, OUDH; *Baharcha*, GARHWAL; *Gasthriká*, SANS.; *Munnay*,
TAM.; *Ghebu-nelli*, *pinua-nelli*, TEL.; *Chamari*, MAR.; *Appel*, MAL.;
Narvel, BOM.

A small deciduous tree of Oudh, North Bengal, South India, Ceylon, Tenasserim, and the Andaman Islands.

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PRIMOSIE.

The root is given in decoction as a cordial and tonic. The leaves rubbed along with pepper are administered in colds and fevers. The whole plant is used in the form of decoction in rheumatism and neuralgia. (Atkinson.) Sanskrit writers describe the root as bitter, stomachic, and useful in fever, anasarca, urticaria, &c. The leaves are bitter and carminative. A soup made of the leaves is occasionally used as a stomachic and carminative. The root forms an ingredient of *dasamula*, a preparation often prescribed by the native physicians in obstinate fevers. (Hindu Mat. Med.) The form *P. barbata*, Wall., Syn. *P. serratifolia*, Roxb., is that which in Bengal bears the name of *Bhut-birarvi*.

Roxburgh says that the natives of Chittagong use the leaves of *P. excelsa* in their diet as well as in medicine.

956 *Premna mucronata*, Roxb.

Vern.—*Bakar, baharcha, basita, agniám*, HIND.; *Agnié, KUMAUN*; *Ban, khar, gian*, PB.

A small tree of the Sub-Himalayan tract from the Chenab eastward.

The milk of the bark is applied to boils, and the juice is given to cattle in colic. (Atkinson.)

Prenanthes? *quinqueloba*, Wall. See *Senecio Quinquelobus*, Hook. f. & T., Composite.

PRIMULA.

957 *Primula reticulata*, Wall., PRIMULACEÆ.

Syn.—*P. ALTISSIMA* and *SPECIOSA*, Don.

Found in the Central and Eastern Himalaya, Nepal and Sikkim, altitude 11,000 to 15,000 feet.

Said to be poisonous to cattle; is used externally as an anodyne. (Atkinson.) The same remark might easily apply to any species of *Primula*.

PRINSEPIA.

958 *Prinsepia utilis*, Royle, ROSACEÆ.

Vern.—*Bhekal, karanga, cherra, jhatela*, HIND.; *Gurinda, HAZARA Jinti*, CHENAB; *Beking*, KANAWAR.

A deciduous thorny shrub of the outer Himalaya, from Hazára to Bhutan, between 2,000 and 9,000 feet. Also met with in the Khásia Hills.

"This shrub yields an oil used as a rubefacient and as an application in rheumatism and pains from over-fatigue." (Atkinson.)

Proof spirit. See Alcohol.

PROSOPIS.

959 *Prosopis spicigera*, Linn., LEGUMINOSE.

Vern.—*Shami, BENG.*; *Shand, khar, PB.*; *Sómi, sámadd, handi, SIND;* *Semru, kamra, GUZ.*; *Pirumbe, jambu, TAM.*

A moderate-sized tree in the Punjab, Sind, Rajputana, Guzerat, Bundelkhand, and Deccan.

The pod is officinal, being considered astringent. (Dr. Stewart.)

Medicines.

Prunella vulgaris. See *Prunella vulgaris*, Linn., LABIATE.

Prunes. See *Prunus communis*, Huds., ROSACEAE.

PRUNUS.

Prunus amygdalus, Baillon., ROSACEAE.

THE ALMOND.

Syn.—*AMYGDALUS COMMUNIS*, Willd.

Var. *amara*.

BITTER ALMONDS.

Vern.—*Karoe-bddame*, HIND.; *Bom*, *Lousal-murr*, ARAB.; *Bidam-e-talikh*, PERS.

Var. *dulcis*.

SWEET ALMONDS.

Vern.—*Mithé-badam*, HIND.; *Lousabhalé*, ARAB.; *Badame-sheerin*, PERS.

Cultivated in Afghánistán, Persia, Kashmir, and the Punjab.

In Mahomedan works two kinds of Sweet Almond are met with, the thick-shelled and the thin. The burnt shells are said to be used as tooth-powder and the unripe fruit as an astringent application to the gums and mouth. "Bitter Almonds are described by Mahomedan writers as attenuant and detergent; they are recommended both externally and internally for a variety of purposes. As a plaster made with vinegar they are used to relieve neuralgic pains; as a collyrium, to strengthen the sight; in emulsion with starch and peppermint, to allay cough. They are also considered to be lithontriptic and diuretic, and of use in removing obstructions of the liver and the spleen. Applied to the head they kill lice; as a suppository they relieve pain in difficult menstruation; as a poultice they are a valuable application to irritable sores and skin eruptions. The root of the tree is described as discutient and alterative; it is used both internally and externally." (Dymock.)

"Bitter almonds produce analogous effects to those of hydrocyanic acid, and may therefore be medicinally used in similar cases, but their administration is not desirable, as the amount of hydrocyanic acid generated is liable to great variation, and their effects, therefore, cannot be relied on with the same degree of certainty as those of hydrocyanic acid. In large quantities bitter almonds have caused serious and even fatal consequences, their poisonous effects being similar to those of hydrocyanic acid." (Bentley and Trimen.)

"Sweet almonds may be used for the extraction of almond oil, yet they are but rarely so employed (at least in England) on account of the inferior value of the residual cake. The only other use of the sweet almond in medicine is for making the emulsion called *Mistura Amygdala*." (Pharmacographia.)

A good nervine tonic. The juice of almonds mixed with sugar is used in coughs. Hakims use the charred and powdered shells as a dentifrice, with an idea that it strengthens the teeth. Almonds mixed with figs are used as a laxative and to relieve pain in the bowels. (Dr. Emerson.)

armeniaca, Linn.

THE APRICOT.

Vern.—*Chuari, sardalu, khoobani*, HIND.; *Hari, gardalu, shiran*, PB.; *Iser*, KASHMIR.

A moderate-sized deciduous tree, cultivated in the North-West Himalaya.

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PRUNUS.

It is stated that apricots form antidotes to hill sickness. In Tibet they are applied after mastication to ophthalmia, and Bellon mentions that the dried fruit is, in Afghánistán, used as a laxative and refrigerant in fevers, &c. (Dr. Stewart.)

Prunus communis, Huds.

THE PLUM.

963

Var. domestica.**Vern.—Oichi, er, aor, Ps.**

Commonly wild and cultivated in Kashmir and Afghánistán. Madan states that it is also cultivated about Almora.

The dried drupes are demulcent and laxative; rarely employed alone for medicinal purposes. The pulp forms an ingredient of Confectio Sennæ, the *Electuarium lenitivum* of the old Pharmacopeias. The fruit, stewed and sweetened, is used as a domestic laxative. (*Pharmacographia*.)

964

Var. insititia.**Syn.—P. BOKHARIENSIS and P. ALOOCHA, Royle.****Vern.—Alo-Bokhárd, HIND., BOM., PERS.; Alo-gadd-pashem, TAM.**

Western temperate Himalaya, cultivated or indigenous, from Garhwal to Kashmir, 5,000 to 7,000 feet in altitude.

The Bokhara Plum in a dry state is met with in the Indian bazars. It is described as sub-acid, cold and moist, digestive and aperient, especially when taken on an empty stomach, useful in bilious states of the system and heat of body. The root is astringent and the gum may be used as a substitute for Gum Arabic. (Dymock.) Largely imported into India and exhibited for sale in every bazar, being largely used as an article of food. With a little sugar they are pleasant and refreshing.

965

P. Laurocerasus, Linn.

CHERRY LAUREL.

A handsome evergreen shrub, growing to the height of 18 or more feet, native of the Caucasian provinces of Russia, of the valleys of North-Western Asia Minor and Northern Persia.

The leaves are a powerful but uncertain sedative; in large doses a violent poison. The leaf-buds are much more powerful than the full-grown leaves. They are used in nervous and spasmodic affections. The bruised leaves have been employed as an anodyne external application in certain painful affections. The cherry laurel water was formerly prepared from the leaves, the use of which has now been superseded by the more definite hydrocyanic acid. (*Pharm. Ind.*; *Pharmacographia*.)

966

P. Mahaleb, Linn.**Vern.—Géodz or Gahula, BOM.; Mahalib, SIND.**

Cultivated in Beluchistán, and probably occurs on the North-West frontier.

The scented kernels are sold in the bazars of North-West India. They serve as a substitute for prussic acid in native practice.

967

P. Padus, Linn.

THE BIRD CHERRY.

Vern.—Yatana, HIND.; Likk-aru, arupatti, NEPAL; Hlo sa plot-kang, LEPCHA; Páras, kala-kat, gida-dák, sambú, chálé, PS.

A moderate-sized deciduous tree, with dark, rough bark, of the Himalaya, from the Indus to Sikkim, between 4,000 and 10,000 feet.

Medicines.

Yields a poisonous oil like oil of almonds, much used in medicinal preparations.

Prunus persica, Benth. & Hook. f.

THE PEACH.

Syn.—*AMYGDALUS PERSICA*, Linn.

Vern.—*Aru*, HIND.; *Takpo*, LEPCHA; *Aru, aor, chijnannu*, PB.; *Ghwar-eshtai*, AFG.; *Shuft ala*, PERS.

Cultivated in the cooler parts of India; up to 10,000 feet in the North-West Himalaya.

The fruit is given as a demulcent, an antiscorbutic, and a stomachic.

P. Puddum, Roxb.

Vern.—*Paddam, pāya*, HIND.; *Kongki*, LEPCHA; *Chamidri, amalgach*, PB.

Temperate Himalaya; from Garhwal, altitude 3,000 to 6,000 feet, to Sikkim and Bhutan, altitude 5,000 to 8,000 feet. Also cultivated in Upper Burma.

Kernel used in stone and gravel.

PSIDIUM.

Psidium Guyava, Raddi., MYRTACEÆ.

THE GUAVA TREE.

Var. *pyriferum*, Linn. (sp.), and *pomiferum*, Linn. (sp.)

Vern.—*Amrāt, amrād*, HIND.; *Piyara*, BENG.; *Amuk*, NEPAL; *Modharian*, Ass.; *Segāpu*, TAM.; *Jama koia*, TEL.; *Malacca beng*, BURM.

Introduced from America, and now cultivated and sometimes semi-wild all over India.

The bark of the root of var. *pyriferum* is valued for its astringent properties, and has been employed with success in the diarrhoea of children. It is generally administered in the form of a decoction. The decoction serves a good deal in the *prolapsus ani* of children. The young leaves are used as a tonic in the diseases of the digestive functions. The bark of the var. *pomiferum* possesses similar properties. The decoction of the leaves has been used in cholera with some success in arresting vomiting and diarrhoea. (*Pharm. Ind.*)

PSORALEA.

Psoralea corylifolia, Linn., LEGUMINOSÆ.

Vern.—*Bukchee, bābchee*, HIND.; *Hakuch*, BENG.; *Bawachi*, BOM.; *Karpo-karishi*, TAM.; *Karu, bogi-vitulu*, TAM.

Found in the plains, from the Himalayas through India to Ceylon.

The seeds are described by some as hot and dry, and by others as cold, dry, laxative, stimulant, and aphrodisiac; recommended in leprosy and other chronic skin diseases, both internally and externally as a plaster. Said to be useful in bilious affections and as an anthelmintic. (*Dymock*.) Ainslie says that in Southern India they are used as a stomachic and deobstruent and prescribed in lepra and other cutaneous diseases. Ral Kanai Lal De, Bahadoor, speaks of the seeds as an excellent stomachic and deobstruent, used largely in cases of leprosy and other cutaneous diseases. An extract is prepared from it which, mixed

Economic Products of India.

PTERO-

SPERMUM.

with oil or ointment, is applied in cases of leucoderma or white leprosy. The application promotes healthy action of the diseased part, and gradually restores the skin to its natural colour.

PTEROCARPUS.

972 Pterocarpus Marsupium, Roxb., LEGUMINOSÆ.

GUM KINO, Eng., Ger. and Fr.

Vern.—*Bija, bijasar*, HIND.; *Dammul-akhvaine-hindi*, ARAB.; *Khâne-siyârashâne-hindi*, PERS.; *Kandamiruga-mirattam, vengas*, TAM.; *Gandumrûgam-nottura, peddagî, pedoi*, TEL.; *Beebla, hoonee, aadn, Bom.*

A large tree of Central and South India, found in the forests of Ceylon and all parts of the Madras peninsula, extending north to the Rajmahal Hills, in Behar. Often cultivated in gardens.

The gum is a valuable astringent. Its action being milder, it is better adapted for children and delicate females. (*Pharm. Ind.*) The bark is also used as an astringent. Ainslie says that the natives believe in the efficacy of the gum in toothache.

973 P. santalinus, Linn. f.

The SANDER'S RED or THE RED SANDER'S TREE, and sometimes called RED SANDALWOOD; SANTALI ROUGE, Fr.; ROTHS SANDELHOLY, Ger.

Vern.—*Ragat-chandan, laichandan, undum*, HIND., DEC.; *Rakta-chandan*, BENG.; *Sandale-ahmar*, ARAB.; *Sandale-surkh*, PERS.; *Shenshanda-num*, TAM.; *Erragandhapuchekka*, TEL.; *Raktachandana*, SANS.; *Kempu-gandha*, KAN.; *Tambada*, MAR.; *Rathandun*, CINGH.; *Sanduk, nasa-ki*, BURM.

A small tree of South India, found chiefly in Cuddapah, North Arcot, and the southern portion of the Karnâl district.

There are three kinds of sandalwood according to the Sanskrit writers, white, yellow, and red. The red variety is described in Hindû works on Medicine as an astringent tonic and used as a cooling external application for inflammation and headache, &c. (*U. C. Dutt.*) The Mahomedan writers recommend the use of white sandalwood in bilious fluxes, of red sandal when blood is being passed, and of two combined when the stools contain bile and blood. (*Dymock.*)

PTEROSPERMUM.

974 Pterospermum acerifolium, Willd., STERCULIACEÆ.

Vern.—*Kanab-champa, mäs*, BENG.; *Hattipaila*, NEPAL; *Gazik*, MAGH.; *Toungpettoo*, BURM.

A tall tree, with thin, grey, smooth bark; met with from the North-Western Himalaya, in Kumaun, altitude 4,000 feet, to Chittagong, Tenasserim, and the Concan.

The down on the leaves is used to stop bleeding in wounds. (*Gamble.*) Used also as a general tonic.

975 P. suberfolium, Lam.

Vern.—*Muchukunda*, SANS.; *Baslo, Uriya*; *Lolagu*, TEL.; *Taddo*, TAM.; *Velunge*, CINGH.

Found in the Western Peninsula, Madras, Pondicherry, &c.; at Ava, Amherst, and in Ceylon.

The flower made into a paste with *kénika* (rice vinegar) forms an application for hemicrania. (*Hindu Mat. Med.*)

Ptychotis Ajowan, DC. See *Carum copticum*, *Benth.*, UMBELLIFERÆ.

P. coptica, DC. See *Carum copticum*, *Benth.*

P. Roxburghiana, DC. See *Carum Roxburghianum*, *Benth.*

PUERARIA.

Pueraria tuberosa, DC., LEGUMINOSÆ.

Vern.—*Bilai-akand*, HIND.; *Dari*, TEL.

Met with on the West Himalayas, tropical zone, ascending to 4,000 feet in Kumaun; also in the hills of Western Peninsula and Orissa.

Roxburgh says that the root is applied in the form of a poultice to the swelling of the joints. Also given as demulcent and refrigerant in fevers.

PULICARIA.

Pulicaria crispa, Benth., COMPOSITÆ.

Syn.—*FRANCEURIA CRISPA*, Cass.

Vern.—*Bái, gidi, sutei, phatmer*, PB.

Found in the Punjab and upper Gangetic Plain and eastward to Behar. In the Salt Range the dried plant is bruised and applied as a vulnerary to bruises, &c., of bullocks. (*Dr. Stewart.*)

Pumpkin. See *Cucurbita Pepo*, *Linn.*, CUCURBITACEÆ.

Puneeria coagulans, Stocks. See *Withania coagulans*, *Dunal.*, SOLANACEÆ.

PUNICA.

Punica Granatum, Linn., LYTHRACEÆ.

THE POMEGRANATE.

Vern.—*Anár*, HIND.; *Dalim*, BENG.; *Darimba*, SANS.; *Shajratur-rumán*, ARAB.; *Darakhte-nár*, PERS.; *Anár*, DEC.; *Mádalai-chcheddi*, TAM.; *Dánimma-chetiu*, TEL.; *Dálimba*, KAN.; *Dálimba*, MAR.; *Dádam*, GUZ.; *Sald-bin*, or *Tali-bin*, BURM.

Cultivated throughout India, probably wild in the North-West.

"The fresh juice of the fruits is much used as an ingredient of cooling and refrigerant mixtures of some medicines for dyspepsia. The rind of the fruit is used as an astringent in diarrhoea." The seeds are considered to be stomachic, the pulp cardiac and stomachic. (*Hindu Mat. Med.*) Pomegranate peel, combined with opium and an aromatic, such as cloves, is a most useful remedy in chronic dysentery as well as in diarrhoea. A decoction of the bark followed by a purgative acts as an anthelmintic. (*Pharmacographia*.) The efficiency of the root-bark as a remedy for tape-worm is now well established in India. It is given in the form of decoction prepared with two ounces of the fresh bark, boiled in a pint and a half of water, till but three quarters of a pint remain. Of this when cold a wine-glassful may be drank every half hour till the whole is taken. This quantity occasionally sickens the stomach a little, but seldom fails to destroy the vermin, which is soon after passed. (*Ainslie*)

QUESTIONS.

Purging Cassia. See *Cassia Fistula*, Linn., LEGUMINOSÆ.

PUTRANJIVA.

979 Putranjiva Roxburghii, Wall., EUPHORBIACEÆ.

Syn.—*NAGEIA PUTRANJIVA*, Roxb.

Vern.—*Gija puts*, *joti*, *pátra-jiva*, HIND.; *Putájan*, PB.; *Karupale*, TAM.; *Kabré-jivi*, TEL.; *Siwanaputara*, BOM.; *Yewan-putr*, MAR.; *Pongalam*, MAL.; *Tonkyap*, BURM.

A moderate-sized evergreen tree with pendent branches of the Sub-Himalayan tract from the Chenab eastward, Oudh, Bengal, Burma, and South India.

The leaves and the stones of the fruit are officinal in some parts of the Punjab. (Dr. Stewart.) Given in decoction in colds and fevers.

Pyrethrum indicum, DC. See *Chrysanthemum indicum*, Linn., COMPOSITE.

Pyroxylin. See under *Gossypium*.

PYRUS.

980 Pyrus communis, Linn., ROSACEÆ.

THE PEAR.

Vern.—*Tang*, *batang*, *nashpati*, PB.; *Amrád*, ARAB.

Believed to be wild in Kashmir; cultivated in the North-Western Himalaya, altitude 2,000 to 8,000 feet, and in West Tibet to altitude 10,000 feet.

Fruit contains much sugar and is nutritive.

P. Cydonia, Linn. See *Cydonia vulgaris*, Pers.

Quassia. See *Picrasma Quassioides*, Benn., SIMARUBÆ.

QUERCUS.

981 Quercus incana, Roxb., CUPULIFERA.

Vern.—*Bán*, *bánj*, *rinj*, PB.

A large evergreen tree of the outer Himalaya, from the Indus to Nepal, generally between 3,000 and 8,000 feet; cultivated at Saharanpur.

Acorns are greedily eaten by wild animals; the bark is used for tanning, and the leaves are lopped for fodder. The acorns form the medicine known in the Punjab as *Balát*, given as a diuretic and in gonorrhœa, and also as an astringent in indigestion, diarrhoea, and asthma.

982 Q. infectoria, Oliver.

THE GALL OR DYERS' OAK.

"A middle-sized shrub, native of Greece, Bosnia, Asia Minor, and Syria, extending east to the confines of Persia, with cylindrical acorns, the leaves grey underneath, yielding the galls used in medicine and dyeing which are imported into Europe from the Levant." (Brandis.)

It seems probable that a large proportion of the galls imported into India are the produce of this species.

Galls are known to be the most powerful of vegetable astringents. They are recommended as an antidote in poisoning by vegetable alkaloids. Tincture of galls, diluted with water, is a very useful astringent gargle and wash. The ointment of galls, either alone or in combination with opium, forms a valuable application to haemorrhoids. (*Bentley and Trimen.*) In the *Pharmacopœia* the galls are described as astringent, tonic and antiperiodic. They are prescribed by the native practitioners in India, in dysentery and diarrhoea; they are also given as tonics in intermittent fever; the powder, moistened with a little water, is applied to chapped nipples; and made into a soft ointment, it is a useful application to blind piles. (*Ainslie.*)

Quercus lamellosa, Smith.

983

Vern.—*Shalshi, parate-singhali, budgrat, N. E. P.; Burk, LEPCHA.*

A large, handsome tree, with large leaves, having many regular, parallel veins and sharply serrate. Met with in Nepal and eastward to Sikkim, Bhutan, Naga hills, and the mountains on the Burma and Manipur frontier.

The bark and acorns are used in medicine.

Q. Pachyphylla, Kurs.

984.

Vern.—*Bara katás, NEPAL; Hlosiri, LEPCHA.*

A large, evergreen tree of higher ranges of the Sikkim Himalaya, above 7,000 feet.

The bark and the acorns are used as astringents.

Q. Rober, Linn.

985

THE COMMON QAK.

A native of almost the whole of Europe from Portugal and the Greek Peninsula.

The dried bark is a powerful astringent, useful in chronic diarrhoea, the advanced stages of dysentery, and intermittent fevers. (*Pharm. Ind.*)

Quicklime. See Calcium.

Quince. See *Cydonia vulgaris, Pers., ROSACEÆ.*

Quinia or quinine. See Cinchona.

986

QUISQUALIS.

Quisqualis indica, Linn., COMBRETACEÆ.

Vern.—*Rangán-ki-bil, DEC.; Irangán-malli, TAM.; Rangánu-malli-chettu, TEL.; Vilayati chambeli, BOM.*

Found throughout India, altitude 0 to 1,000 feet.

In the Moluccas, the seeds are supposed to be anthelmintic. Four or five of the seeds are given with honey or jain in the form of an electuary for the expulsion of entozoa in children. (*Pharm. Ind.*)

Raisins. See *Vitis vinifera, Linn., AMPELIDEÆ.*

RANDIA.

- 987 *Randia dumetorum*, Lam., RUBIACEAE.

Syn.—*R. LONGISPINA*, DC.

Vern.—*Mainphal*, *manyul*, *karkar*, *avar*, HIND.; *Mindia*, *mandkolla* P.B.; *Maidal*, *amuki*, NEPAL; *Panji*, LEPCHA; *Patira*, URIYA; *Madana* SANS.; *Jousal*, ARAB.; *Madu-karry*, TAM.; *Manda*, TEL.

A small, thorny shrub, common on the Himalaya, from the Chenab eastward.

The fruit is described by Sanskrit writers as the best and safest of emetics. Externally applied it acts as an anodyne in rheumatism. An infusion of the bark is used as a nauseating medicine. It is also applied to bruises, mixed with cowdung.

R. uliginosa, DC.

Vern.—*Pendari*, BOM.

Found in East, Central and South India; in Sikkim and Assam.

The unripe fruit, roasted in wood ashes, is used as a remedy in diarrhoea and dysentery, the central portion, consisting of the stone and seeds, being rejected; it is astringent. (Dymock.)

RANUNCULUS.

- 989 *Ranunculus sceleratus*, Linn., RANUNCULACEAE.

Syn.—*R. INDICUS*, Roxb.

Vern.—P

An erect annual 1 to 3 feet high, met with on the river banks in Bengal and Northern India, in the marshes of Peshawar, and in the warm valleys of the Himalaya.

A common annual weed on our *churs* and river banks and damp fields, appearing during the cold season. It may be described as cosmopolitan. The Romans called it *Sardonia*, from the idea that when eaten it produced convulsive and forced or heartless laughter. This name was derived from Sardinia, where the plant was probably first obtained, and where it is reported at the present day to be very plentiful. As its botanical surname denotes it has a dozen evil or unpleasant properties. It frequents dirty, slimy places; it is "scelerate," because of its acrid, vesicant properties. It was formerly used in Europe by professional beggars to produce or maintain blisters or open sores intended to excite sympathy. Roxburgh remarks that it has no native name, and that its properties are apparently unknown. It certainly possesses a very powerful principle, and one would expect to find it taking a place in the practice of herbalism. Water distilled from a decoction retains its acrid character, and if this be allowed to slowly evaporate it leaves behind a quantity of highly insoluble crystals of a very inflammable character. The boiled plant is, however, wholesome, and the peasants of Wallachia use it as a vegetable. (*Sowerby's English Botany*.) This fact might prove serviceable in times of scarcity, since, in most parts of India, many square miles, especially along the sandy river basins, are often covered with the plant, and it lasts almost to the rains.

The fresh plant is poisonous, and produces violent effects if taken internally. The bruised leaves form an application to raise blisters, and may also be used to keep open sores caused by vesication, or by other means (*Murray*).

RAPHANUS.

Raphanus sativus, Linn., CRUCIFERÆ.

RADISH.

Vern.—*Mâli*, HIND.; *Mâla*, BENG.; *Fugil*, ARAB.; *Turb*, PERS.; *Malli*, DEC.; *Mullangi*, TAM.; *Mullangi*, TEL.; *Mullangi*, KAN.; *Mâla*, BURM.

Cultivated throughout India, and up to 16,000 feet in the Himalaya.

The seeds are diuretic, laxative and lithontriptic, and the roots are used in native medicine for urinary and syphilitic diseases.

Rasot or Rusot. See *Berberis*.

RAUWOLFIA.

Rauwolfia serpentina, Benih., APOCYNACEÆ.

Syn.—*OPHIOXYLON SERPENTINUM*, Linn.

Vern.—*Chandra*, *chhoto-chhârd*, BENG.; *Patala-gandhi*, TEL.; *Chuvanna-avilpori*, MAL.

Found in the tropical Himalaya and plains near the foot of the hills from Sirhind and Moradabad to Sikkim.

The plant is highly esteemed by the natives as an antidote to snake-bites. It is also valued as a tonic and a febrifuge. Horsefield states that the root yields a strong bitter infusion. It is also employed by the Javanese as an anthelmintic. A decoction of the root is employed in labours to increase uterine contractions. (*Pharm. Ind.*)

Realgar.

Vern.—*Manahsila*, SANS.

"Realgar is purified by being rubbed with the juice of lemons or of ginger. It is used intergally in fever, skin diseases, cough, asthma, &c., and externally in skin diseases. In fever, it is generally used in combination with mercury, orpiment, &c." (*U. C. Dutt.*)

Rectified spirit. See *Spiritus Rectificatus*.

REINWARDTIA.

Reinwardtia trigyna, Planch., LINEÆ.

Syn.—*LINUM TRIGYNUM*.

Vern.—*Karkân*, *kaur*, *gud batal*, *basant*, *bdl-basant*, PB.

Met with in the hilly parts of India from the Punjab eastward to Sikkim, ascending to 6,000 feet, Behar, Assam, and Chittagong, and southward from the Bombay ghâts to the Nilgiri hills. Said to be used as a medicine for founder in cattle. (*Dr. Stewart.*)

Resin. See species of *Pines* and *Abies*, CONIFERÆ.

RHAMNUS.

Rhamnus cathartica, Linn., RHAMNÆ.

COMMON OR PURGING BUCKTHORN.

A robust shrub indigenous to North Africa, the greater part of Europe, and stretches eastward to the Caucasus and into Siberia.

From the juice of the berries is prepared a syrup having strongly purgative properties, much more used as a medicine for animals than for man. The pigment *Sap Green* is also made from the juice. (*Pharmacographia*.) The recently-expressed juice is used as a hydragogue cathartic in dropsical affections, obstinate constipation, &c. (*Pharm. Ind.*)

995 Rhamnus purpurens, Edgar.

Vern.—*Bal sitjal, kárñ, memarírd, kénji, PB.*

Common up to near the Indus at from 4,500 to 9,500 feet.
In Gazará the fruit is used as a purgative.

996 R. Wightii, W. & A.

Vern.—*Rakta-rohida, Bom.*

Found in the Western Peninsula; from the highest hills of the Konkan southward to the Nilgiris; also met with in Ceylon.

The bark is highly esteemed for its tonic, astringent and deobstruent properties. (*Dymock*.)

Rhatany. See *Krameria triandra, Rins et Pav., POLYGALÆ.*

RHAZYA.

997 Rhazya stricta, Decaisne, APOCYNACEÆ.

Vern.—*Sunwar, HIND.; Gandera, PB.; Sehar, secwur, SIND.*

Found in Sind; also common in Trans-Indian territory, Salt-Range and Peshawar.

The juice of the leaves is given with milk to children for eruptions, and an infusion of them is very useful for sore-throat, low fevers and general debility. The leaves, which are very bitter, are sold in the bazars in Sind, the natives using them in the preparation of cooling bitter infusions. Dr. Stocks describes the infusion as a good and peculiar bitter tonic, and recommends it for trial. (*Dymock*.)

The dried leaves and stalks are sold in the Sind bazars. Used as a bitter tonic. (*Dr. Emerson*.)

RHEUM.

998 Rheum Emodi, Wall., POLYGONACEÆ.

Syn.—*R. WEBBIANUM, Royle.*

Vern.—*Hindi-revand-chini, HIND.; Bangald-revan-chini, BENG.; Révande-kindi, ARAB.; Révande-hindi, PERS.; Nét-révan-chini, DEC.; Nathir-irval-chinni, TAM.; Nattu-réval-chinni, TEL.; Gamni-revan-chini, GUZ.*

Frequent in parts of the Punjab Himalaya from 6,200 to 14,000 feet.

This species and *R. Moorcroftianum* and *R. speciforme* are the chief sources of Himalayan or Indian Rhubarb.

The Indian rhubarb is used as an astringent tonic and purgative. It is less active than the imported rhubarb and has been often pronounced worthless. Dr. Cleghorn asserts that only an inferior variety reaches the plains. He found that the action of the fresh root is equal to that of Russian rhubarb. He therefore suggests that if the plant be cultivated with due care, it may produce a good serviceable drug similar to Chinese or Turkey rhubarb (*Pharm. Ind.*)

Rheum Moorcroftianum, Wall.

For vernacular names and medicinal properties, see *Rheum Emodi*.

R. sp. ?

TURKEY RHUBARB.

The dried root is primarily a mild and efficient cathartic; secondarily astringent; in small doses, stomachic and astringent (*Bharm. Ind.*)

R. spiciforme, Royle.

For vernacular names and medicinal properties, see *Rheum Emodi*.

RHINACANTHUS.

Rhinacanthus communis, Nees., Acanthaceæ.

Vern.—*Palik-jookie*, HIND.; *Jooi-pona*, BENG.; *Nagamully*, TAM.; *Nar-gamollay*, TEL.; *Pul-colli*, MAL.; *Gach-karan*, BOM.

A shrub, 4 to 5 feet; met with in South India (Travancore).

The fresh root and leaves, bruised and mixed with lime-juice, are a useful remedy for ringworm and other cutaneous affections. The seeds also are efficacious in ringworm. (*Ainslie; Royle.*) The root-bark is a remedy for the affection of the skin which the Europeans call Dhobie's itch, Malabar itch, &c. (*Dymock.*)

RHODODENDRON.

Rhododendron Anthopogon, D. Don., ERICACEÆ.

Vern.—*Nichni rattankat*, *nera*, JHELUM; *Tasak-tsum*, *Talis-far*, KASHMIR.

Found in the Himalaya, from Kashmir to Sikkim, above 11,000 feet, and on the Chor and Kedarkanta, with white or pale yellow flowers.

The leaves of this plant and of *R. lepidotum* are aromatic, and their smoke is considered useful in some diseases. They are supposed to have stimulant properties.

R. arboreum, Sm.

Vern.—*Chhan*, HAZARA; *Arddawal*, *mandal*, *chiu*, *bras*, HIMALAYAN NAMES; *Brus*, KUMAUN; *Bhorans*, NEPAL; *Etok*, LEPCHA; *Muramat*, CINGH.

A small, evergreen tree of the outer Himalaya, from the Indus to Bhutan, between 3,000 and 11,000 feet, hills of South India and Ceylon, Kareenee hills in Burma.

The young leaves are poisonous. The flowers are said to make a good sub-acid jelly. They are also medicinal, and applied to the forehead for headache. (*Dr. Stewart.*)

R. campanulatum, D. Don.

Vern.—*Gaggar*, KASHMIR; *Chimul*, KUMAUN; *Sarngar*, *shinwala*, *shirgar*, *simrung*, HIMALAYAN NAMES; *Cherialu*, NEPAL.

An evergreen shrub, with thin grey bark, of the inner Himalaya, from the Indus to Nepal, between 9,500 and 14,000 feet; outer ranges on Chor and Kedarkanta; Sikkim at 11,000 feet.

The leaves are poisonous to goats. Mixed with tobacco, it is made into a medicinal snuff, useful in colds and headaches.

RHUS.

1006 Rhododendron lepidotum, Wall.

Vern.—*Tsaluma, truma, BHUTIA.*

For medicinal properties, see *R. Anthopogon*.

Rhubarb. See *Rheum Emodi*, *Wall.*, *Polygonaceæ*.

RHUS.

Rhus acuminata, DC. See *Rhus succedanea*, *Linn.*, *Anacardiaceæ*.

R. buckiamela, Roxb. See *Rhus semi-alata*, *Murray*.

1007 R. coriaria, Linn.

THE SUMACH TREE OF EUROPE.

Vern.—*Tatrah, HIND.; Sumak, ARAB., PERS.*

The plant is not a native of India, but the fruit is imported in large quantities from Persia.

The leaves of this tree have long been known well in Europe as an article of commerce. The fruit was used in Europe as an astringent in dysentery. In Mahomedan works, the fruit is described as cold and dry, astringent and tonic. It checks bilious vomiting and diarrhoea, haemoptysis, haematemesis, diuresis and leucorrhœa. It strengthens the gums, and is useful as an astringent in conjunctivitis. It is also applied to sores either alone or mixed with charcoal. The leaves and fruit are boiled down, and a liquid extract is obtained, which is used as an astringent; leaves are made into poultices, which are applied to the abdomen in the diarrhoea of children. The leaves and fruit are used by Mahomedans as a styptic, astringent and tonic. (*Dymock*.)

R. Kakrasingee, Royle. See *Pistacia Integerrima*, *Stewart.*, *Anacardiaceæ*.

1008 R. parviflora, Roxb.

Vern.—*Tung, rai tāng, tāmra, HIND., PB.*

A shrub of dry slopes of the North-West Himalaya, and of the hills of Central India, with a yellowish, close-grained wood.

Used in Hindu medicine, and, mixed with salt, is said to act like tamarind. (*Stewart.*)

1009 R. semi-alata, Murray.

Syn.—*R. BUCKIAMELA, Roxb.*

Vern.—*Bakhia-wela, NEPAL; Takhril, LEPCHA; Tatri, arkhar, arkol, PB.; Dakhmila, dāwila, N.-W.-P.*

A moderate-sized, deciduous tree of the outer Himalaya, from the Indus to Assam, ascending to 7,000 feet; Khásia hills.

The fruit is given in colic.

1010 Rhus succedanea, Linn.

Vern.—*Kákrasingi, HIND., BOM.; Kákbrasringi, BENG.; Karkatasringi, SANS.; Kaniwalai, NEPAL; Fatri, arkol, PB.; Kákharasingi, DEC.; Kákhatashringi, TAM.; Kákara-shringi, TEL.; Kahada-shringi, MAR.*

A small, deciduous tree, with thin bark of Himalaya, from the Jhelum to Assam, Khásia hills, from 2,000 to 8,000 feet.

"The horn-like excrescences caused by insects on the branches of *Rhus succedanea* are called *karkata-sringi*." "They are large, hollow, thin-walled, generally cylindrical, tapering to either extremity." "They are considered

tonic, expectorant and useful in cough, phthisis, asthma, fever, want of appetite and irritability of stomach." (*Hindu Mat. Med.*) "Mahomedans describe them as hot and dry, useful in chronic pulmonary affections, especially those of children, also in dyspeptic vomiting and diarrhoea; they notice their use in fever and want of appetite, and say that they are a good external application in cases of psoriasis." (*Dymock.*)

ROHON
BARK.**R. Wallichii, Hook. f.**Syn.—*R. VERNICIFERA, DC.*Vern.—*Akoria, kaunsi, bhalion, N.-W. P.; Bhadrao, chasi, NEPAL;* *Kam-bal, gadimbal, arkhari, PB.*

A small or moderate-sized tree of the North-Western Himalaya, from 2,000 to 7,000 feet.

"The juice of the leaves is corrosive, and blisters the skin." (*Gamble.*)

1011

RIBES.**Ribes orientale, Poir., SAXIFRAGACEÆ.**

1012

Vern.—*Nangke, phulanch, CHENAB.; Askata, LADAK.*

A shrub of Kashmir and Baltistan, altitude 8,000 to 12,000 feet.

Rice. See *Oryza sativa.*

RICINUS.**Ricinus communis, Linn., EUPHORBIACEÆ.**

1013

Castor oil is regarded as a mild and most efficacious purgative, and useful in costiveness, tympanitis, fever, inflammation, &c. It is much valued in chronic rheumatic diseases. The root of the plant is said to be useful in various forms of rheumatism, such as lumbago, pleurodynia and sciatica, &c. (*Hindu Mat. Med.*) The Mahomedans consider the oil a powerful resolvent and purgative of cold humours, and prescribe it in palsy, asthma, colds, colic flatulence, rheumatism, dropsy and amenorrhoea. The fresh juice is used as an emetic in poisoning by opium and other narcotics; made into a poultice with barley meal it is applied to inflammatory affections of the eye. The root-bark is used as a purgative and alterative in chronic enlargements and skin diseases. (*Dymock.*) The leaves are used in the form of decoction or poultice as an application to the breasts of women to increase the secretion of milk. The decoction when used internally acts as a lactagogue and an emmenagogue. (*Bentley & Trimen.*)

See LIST OF OILS AND OIL SEEDS.

ROCELLA.**Roccella fuciformis, DC., LICHENES.**

1014

Occurs in Ceylon and India.

R. tinctoria, DC.

1015

This and the above species are used chiefly as a chemical test. Dr. R. Haines says that *R. tinctoria* and other allied species form an ingredient in "Goa powder."

Jun Bark. See *Soymida febrifuga, Juss., MELIACEÆ.*

ROSMARI-
NUS.

ROSA.

1016 *Rosa alba*, Linn., ROSACEÆ.Vern.—*Sonth*, BRNG., HIND.

A native of Caucasus and Afghanistan; cultivated in India.

The flowers are used in perfumery, and also as a cooling medicine in fever.

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1017 *R. canina*, Linn.

Dog Rose.

The ripe fruit is officinal only as an ingredient which is frequently used as the basis of electuaries, and also for the formation of pill masses. (*Pharm. Ind.*) The root has been recommended in hydrophobia. (*Ainslie.*)

1018 *Rosa centifolia*, Linn.

THE HUNDRED-LEAVED, or CABBAGE ROSE.

Vern.—*Gulab*, HIND.; DEC.; *Golap*, BENG.; *Vard*, ARAB.; *Gula-surkh*, PERS.; *Iroja*, TAM.; *Raja*, TEL.; *Paninir*, MAL.; *Gulabi*, KAN.; *Nest-pān*, BURM.

A native of Caucasus and Assyria; cultivated in India.

The petals and the volatile oil obtained from the petal form the officinal parts. The petals are said to be mildly laxative. The oil or the *attar* of roses is employed in medicine to disguise the unpleasant odour of certain ointments, and other external applications.

1019 *R. damascene*, Mill.Vern.—*Gulab*, HIND., DEC.; *Golap*, BRNG.; *Vard*, ARAB.; *Gula-surkh*, PERS.; *Iroja*, TAM.; *Raja*, TEL.; *Paninir*, MAL.; *Gulabi*, KAN.; *Nest-pān*, BURM.The commonest Indian garden rose; cultivated for *attar*.

"In India rose buds are preferred for medicinal use, as they are more astringent than the expanded flowers; they are considered to be cold and dry, cephalic, cardiac, tonic and aperient, removing bile and cold humours; externally applied the petals are used as an astringent. The stamens are thought to be hot, dry and astringent." (*Dymock.*)

1020 *R. Gallica*, Linn.

FRENCH OR RED ROSE.

Native of Europe and Asia Minor; cultivated in India.

The dried petals are slightly tonic and astringent, and useful in debility.

ROSMARINUS.

1021 *Rosmarinus officinalis*, Linn., LABIATE.

ROSEMARY.

The oil is carminative, chiefly used as an ingredient in stimulating liniments for alopecia.

Medicines.

ROSTELLULARIA.

Rostellularia procumbens, Nees, ACANTHACEÆ.

1022

Vern.—*Ghatipapra*, Bom.

A small plant very abundant during the rainy season. It has a faintly bitter, disagreeable taste, and is used as a substitute for *Punaria*, the true *Pit-papra*. (Dymock.)

Rottlera tinctoria, Roxb. See *Mallotus philippensis*, Mill., Arg., EUPHORBIACEÆ.

ROUREA.

Rourea santaloïdes, W. & A., CONNARACEÆ.

1023

Vern.—*Vardhara*.

Found in the Western Peninsula, from the Concan to Travancore, and Ceylon.

The root is used medicinally as a bitter tonic in rheumatism, scurvy, diabetes and pulmonary complaints. Many fanciful virtues are also attributed to it by the natives; it is believed to promote the growth of fetus in utero, the development of which has been arrested. (Dymock.)

ROYLEA.

Roylea elegans, Wall., LABIATEÆ.

1024

Vern.—*Patharru*, HIND.; *Tiipati*, KUMAUN; *Kaur kauri*, PB.

A shrub with grey bark, of North-West Himalaya, from the Ravi to Nepal, up to 3,000 feet.

The leaves are used as a bitter tonic febrifuge.

RUBIA.

Rubia cordifolia, Linn., RUBIACEÆ.

1025

THE INDIAN MADDER.

Syn.—R. MUNJISTA, Roxb.

Vern.—*Manjiti*, HIND., BOM.; *Manjistha*, BENG.; *Manjistha*, SANS.; *Fovval*, ARAB.; *Rands*, PERS.; *Manjitti*, TAM.; *Tamravalli*, TEL.; *Manjustha*, KAN.

A small, herbaceous creeper, met with throughout the hilly districts of India, from the North-West Himalaya eastward, ascending to 8,000 feet, and southward to Ceylon and Malacca.

Indian madder is chiefly used in medicine as a colouring agent. It is also useful as an astringent in external inflammations, ulcers and skin diseases. (*Hindu Mat. Med.*) It is considered by Mahomedan writers to be deobstruent, and prescribed in paralysis, jaundice, obstructions in the urinary passages and amenorrhœa. The fruit is useful in hepatic obstruction, and the roots, made into a paste with honey, form a good application to freckles and discoloured skin. Ainslie says that an infusion of the root is prescribed by the Mahomedan doctors to women after delivery, to procure copious flow of lochia.

Rue. See *Ruta graveolens*, Linn., RUTACEÆ.

RUMEX.

Rumex acutus, Roxb., POLYGONACEAE. See *Rumex Wallichii*, Meisn.

1026 | *R. vesicarius*, Linn.

Vern.—*Chuba*, HIND.; *Chukpalong*, BENG.; *Chakra*, SANS.; *Hummas*, ARAB.; *Turshah*, PERS.; *Shakhan-krai*, TAM.; *Shukhaurabu*, TEL.; *Kala-kheng-boun*, BURM.

Wild and cultivated in Sind; common in arid places, in the Salt Range and Trans-Indus to 3,000 feet, also in South India; cultivated in the Deccan.

The *Rumex vesicarius* has obtained the name of Sorrel in India. It is an article of diet, and is considered by the natives as cooling and aperient, and to a certain extent, diuretic. (*Ainslie*.) The juice is said to allay the pain of toothache, and by its astringent properties to check nausea, promote the appetite, and allay morbid craving for unwholesome substances. The herb also is considered very cooling and of use in heat of stomach, and externally as an epithem to allay pain, especially that caused by the bites or stings of reptiles and insects. The seeds are said to have similar properties, and are prescribed roasted in dysentery, and as an antidote to scorpion stings. The root is also medicinal.

1027 | *R. Wallichii*, Meisn.

Syn.—*R. ACUTUS*, Roxb.

Vern.—*Gangle-palak*, HIND.

"The plant has cooling properties; the leaves are applied to burns and the seeds are applied as the *lij-band* of the bazars." (*Atkinson*.)

RUTA.

Ruta augustinifoliam, Pers. See *Ruta graveolens*, Linn., RUTACEAE.

R. Chalepensis, Wall. See *Ruta graveolens*, Linn.

1028 | *R. graveolens*, Linn., var. *augustinifolia*.

GARDEN RUE.

Syn.—*R. AUGUSTIFOLIA*, Pers.; *R. CHALEPENSIS*, Wall.

Vern.—*Sadab*, HIND., PERS.; *Fijan*, ARAB.; *Sadá*, DEC.; *Arvadá*, TAM.; *Sadápa*, TEL.; *Nágadá-sappu*, KAN.; *Sadáp*, GUZ.; *Aruda*, CINGH.

A small, branching under-shrub, 2 to 3 feet high, cultivated in Indian gardens for the medicinal properties of its leaves and seeds.

"The leaves dried and burnt are used by the Hindus for the purpose of fumigating young children suffering from catarrh; they are also freshly bruised and mixed with arrack as an external remedy in the first stages of paralytic affections; dried and powdered they are prescribed in conjunction with aromatics in cases of dyspepsia (*Ainslie*); they are considered to be injurious to pregnant women." A Mahomedan author describes it hot and dry, tonic and digestive and capable of increasing the urinary and menstrual excretions. Rue was considered by early European practitioners as antispasmodic, stimulant and emmenagogue, and useful in hysteria, flatulent colic, epilepsy, and infantile convulsions. It has also been described as anthelmintic and an acro-narcotic poison in overdoses. (*Dymock: Pharm. Ind.*) The Oil of Rue may be externally used as a rubefacient.

Sabadilla. See *Asafoetida officinalis*, Lindl., LILIACEAE.

SACCHARUM.

Saccharum Mara, Roxb., GRAMINEÆ.

Vern.—*Sarpat, HIND.; Sar, BENG.; Darga, kanda, PB.; Gundra, TEL.*

Common in the plains.

The root is officinal in the Punjab under the name *garbu ganda*. It is burned near women after delivery, and near burns and scalds, its smoke being considered beneficial. (Dr. Stewart.)

S. officinarum, Linn.

SUGAR-CANE.

Vern.—*Ukh, gannā, HIND.; Ah, BENG.; Ikhsh, SANS.; Qasabus-sahar, ARAB.; Nai-shakar, PERS.; Ganda, DEC.; Kurumbu, TAM.; Choruku, TEL.; Usa, MAHR.; Karinpa, MAL.; Khabbu, KAN.; Kiyán, BURM.*

Grown extensively in Bengal and some parts of India.

Pure cane sugar is officinal, being considered demulcent, nutritive, and dietetic. The root is also supposed to be demulcent and diuretic. The juice of the sugar-cane is said to be the best antidote to arsenic. Sugar and treacle are largely used in native medicines. Refined sugar is employed in pharmacy for making syrups, electuaries and lozenges, and is useful not merely for the sake of covering the unpleasant taste of other drugs, but also on account of a preservative influence which it exerts over their active constituents. (Pharm. Ind.: Pharmacographia.)

Saffron. See *Crocus sativus, Linn.*, IRIDÆ.

Sago Tree, Bastard. See *Caryota urens, Linn.*, PALMÆ.

Sagus laevis, Rumph., PALMÆ. See *Metroxylon Sagu, Rottb.*

St. Ignatius' Bean. See *Strychnos Ignatii, Bergius*, LOGANIACEÆ.

SAJJI.

Sajji or Barilla is in India prepared from the following plants, all of which belong to *Chenopodiaceæ* :—

1. *Anthocnemum indicum, Moq.*, COROMANDEL COAST.
2. *Caroxylon fastidium, Moq.*, SIND AND PUNJAB.
3. *Caroxylon Griffithii, Moq.*, PUNJAB.
4. *Salicornia brachiata, Roxb.*, SUNDERBUNS AND COROMANDEL.
5. *Salsola kali, Willd.*,
6. *Sueda fruticosa, Forsk.*, SIND AND PUNJAB.
7. *Sueda indica, Moq.*, SUNDERBUNS and COROMANDEL.
8. *Sueda nudiflora, Moq.*, PONDICHERRY.

It is an impure Carbonate of Soda prepared by burning the above mentioned plants which contain alkaline matter; it is therefore of vegetable origin, and is known to the natives as *Khar-suji* or *suji-khar* (Hind).

The process by which this substance is prepared is carried on during the month of October and the three following months. The plant is first cut down and then allowed to dry. The next step is to dig a pit in the ground of a hemispherical shape and about 6 feet in circumference and 3 feet deep. One or more vessels having holes are placed inside the pit, the holes being kept closed when the operation begins. The dry plants are gradually burned in the vessels, and during the process a liquid substance is found to run down the vessel. After all the liquid has run down the residue is stirred up by means of a flat piece of wood and kept

SALIX.

covered over with earth for three or four days till it cools, when any portion of it may be taken as wanted.

This substance is primarily antacid, and secondarily alterative. It is a valuable remedy in acidity of the primæ vīz, and in cardialgia, diarrhoea, flatulence, and vomiting connected therewith. (*Pharm. Ind.*)

SAL AMMONIAC.**1032 Sal Ammoniac.**

Sal ammoniac or chloride of ammonium may be formed by neutralizing hydrochloric acid with ammonia and evaporating to dryness.

This substance is alterative in small and continued doses; and in larger doses stimulant. It is useful "in chronic affections of the lungs and of the liver and spleen, in dropsy connected with hepatic and ovarian disease, in passive haemorrhages, especially haemoptysis, in neuralgic and rheumatic affections of the face, in certain forms of nervous headaches, in amenorrhœa, in hooping cough, and in intermittent and continued fevers. Locally or externally, it has been applied, in solution, to indolent tumours, enlarged glands, incipient mammary abscesses, hydrocele, bruises, sprains, and certain chronic skin diseases." (*Pharm. Ind.*)

SALICORNIA.**1033 Salicornia brachiata, Roxb., CHENOPodiaceæ.**

Syn.—*Wight's Icon t. 738.*

Vern.—*Quoitâ or koyalâ, Tel.*

A gregarious, herbaceous shrub, growing abundantly on the coasts of India and on the margins of salt lakes. DeCandolle quotes Wallich as giving Nepal as a region where the plant is also met with.

This is one of the numerous sources of the Alkaline earth, *sajji*, used in medicine and also in the arts. (Compare list of plants given under *Sajji*.)

S. indica, Willd. See *Arthrocnemum indicum, Mog.*

SALIX.**1034 Salix babylonica, Linn., SALICINEÆ.**

THE WEEPING WILLOW.

Vern.—*Tisni, bhasi, NEPAL ; Giar, KASHMIR ; Bisâ, beda, katira, PB.*

Commonly cultivated in North India; said to be indigenous to the Sulaiman Range.

The leaves are officinal, being considered tonic, possibly from the salicine in them. (*Dr. Stewart.*)

1035 S. Caprea, Linn.

Vern.—*Bod mushk, PB. ; Khildî, ARAB. ; Bedo-mushk, PERS.*

Grown in North India, usually from cuttings.

The flowers yield on distillation a scented water which is highly valued as a medicine, being cordial, stimulant, and aphrodisiac, and is externally applied in headache and ophthalmia. The ashes of the wood are useful in haemoptysis, and mixed with vinegar, applied to haemorrhoids. The stem

Medicines.

and leaves are astringent, and the juice and gum are also used medicinally.
(Dr. Stewart.)

The flowers are imported from Persia into Bombay under the name of *Bed-mishk*.

Salix sp.

Vern.—*Bed khist*, PB.

Used as a laxative.

SAEV
DOM

1036

S. tetrasperma, Roxb.

Vern.—*Panti-jamā*, HIND.; *Pani jama*, BENG.; *Laila, bains*, N. W. INDIA;
Bis, bitsa, bakshel, PB.; *Yir*, KASHMIR; *Vālunj, bachā*, DEC.; *Atpūpā-lai*, TAM.; *Etipāla*, TEL.; *Atrapala*, MAL.; *Momakha*, BURM.

A moderate-sized, deciduous tree found throughout India, on river-banks and moist places, and in the Himalaya valleys ascending to 6,000 feet.

The bark is said to be febrifuge. Sir W. O'Shaughnessy carefully examined the bark and failed to detect any trace of salicine in it.
(Pharm. Ind.)

1037

Salmalia malabarica, Schott. See *Bombax malabaricum*, DC., MALVACEAE.

SALSOLA.

Salsola indica, Willd. See *Suaeda indica*, Moq., CHENOPODIACEAE.

S. Kali, Ten.

Vern.—

This is one of the plants that are burned for the manufacture of *Sajji*, which see.

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Salt, Common. See Sodium Chloride.

SALVADORA.

Salvadora oleoides, Dcne. SALVADORACEAE.

Syn.—*S. INDICA*, Royle.

Vern.—*Jhal*, HIND.; *Kabbar, jhár, mithi-diár*, SIND.; *Jál, rán*, PB.; *Ughai, koku*, TAM.; *Khakhnela, pilu*, MAR.; *Kakhan*, BOM.

A large, evergreen shrub or tree of Sind and Punjab, ascending to 3,000 feet in the Trans-Indus hills and to 2,400 feet in the Salt Range.

The oil obtained from the seeds by expression is used as a stimulating application in painful rheumatic affections and after child-birth. The root-bark is used as a vesicant.

1039

The oil is a bright green fat of the consistence of butter. The yellowish substance sold in the bazar is much adulterated. (Dymock.)

S. persica, Garcin.

1040

THE TOOTH-BRUSH TREE.

Syn.—*S. WIGHTIANA*, Hook. f.

Vern.—*Arák, Aráb*, ARAB.; *Darakhto-misvak*, PERS.; *Kabbar, kharidjar, pilu*, SIND; *Jhal*, RAJPUTANA; *Kaurivan, jhér*, PB.; *Opa, ughai*, TAM.; *Waragu-wenki*, TEL.; *Pilu*, MAR.; *Kakhan*, BOM.

A small, evergreen tree wild in Sind, Rajputana, Guzerat, Konkan, and the Circars.

SAMADERA.

In Mahomedan works, the fruits are described as deobstruent, carminative and diuretic. The leaves may be used in the form of a poultice to relieve the pain of tumours, piles, &c. The wood is used as a tooth-brush to strengthen the gums. Ainslie says that the bark is a little warm and somewhat acrid, and is recommended by the Hindu doctors to be used in the form of a decoction in low fever, and as a tonic and stimulant in amenorrhœa. The bruised bark of the root acts as a vesicant. In cases of snake-bites, the seeds when administered internally have been found to produce good results. They are also said to be a good purgative. (Dymock.)

SALVIA.

1041 *Salvia lanata*, Roxb., LABIATE.

1042 *S. Moorcroftiana*, Wall.

Vern.—*Kdli járri, sholri, gurgumna*, Pb.

One of the above two species is commonly wild in the plains of north-west Punjab, in the Salt Range, and in the Himalaya to 9,000 feet.

The root is given in cough, and the seeds are used as an emetic. The leaves are a medicine for guinea-worm and itch, and in the form of poultice applied to wounds. At Lahore the seeds are given in colic and dysentery, and are applied to boils. (Dr. Stewart.)

1043 *S. officinalis*, Linn.

GARDEN SAGE.

Vern.—*Salbia*, HIND.; *Sesakuss* (Ainslie).

Native of South Europe. The leaves are imported into India.

They are regarded as a feeble tonic, astringent, and an efficient aromatic; formerly employed as a stimulant tonic in general debility and weakness of digestion. They are also known to be diaphoretic and anti-spasmodic, but their chief use is as a wash for aphthous affections of the mouth and as a gargle in sore-throat and relaxation of the uvula. The leaves are macerated to form a drink used in febrile affections to allay nausea. (Bentley and Trimen.)

1044 *S. plebeia*, R. Br.

Vern.—*Sathi, saméndar sok*, Pb.

Common in the Punjab plains and to 5,000 feet in the Punjab Himalaya.

The seeds are used in gonorrhœa and menorrhagia.

1045 *S. pumila*, Bth.

Vern.—*Tukhm salanga*, Pb.

A small plant common in the Salt Range and Trans-Indus to 2,500 feet.

The seeds are used in diarrhoea, gonorrhœa and haemorrhoids.

SAMADERA.

1046 *Samadera indica*, Gértn., SIMARUBÆ.

Vern.—*Karingkott*, MAL.; *Samadara*, CINGH.; *Kathai*, BURM.

A tree 30 to 35 feet high, of the Western Peninsula, South Concan and Malabar; also met with in Ceylon.

The bark is used by the natives as a febrifuge. An oil extracted from the kernels of the fruit forms a good application in rheumatism. The bruised leaves are externally applied in erysipelas. The seeds are worn round the neck as a preventive of asthma and chest affections. An infusion of the wood is also taken as a general tonic.

Samara Ribes, Benth. & Hook. f. See Embelia Ribes, Burn., MYRSINACE.

S. robusta, Benth. & Hook. f. See Embelia robusta, Roxb.

SAMBUCUS.

Sambucus nigra, Linn., CAPRIFOLIACEAE.

COMMON ELDER OR BORE TREE.

A shrub or small tree reaching a height of 20 feet, native of all parts of Europe. The flowers are imported into India.

The flowers are gently stimulant and sudorific. They are sometimes prescribed as a laxative to infants. In large doses they are said to cause nausea and diarrhoea. Elder flower water is used as a vehicle for other medicines, especially in lotions. It is mildly stimulant. (*Pharm. Ind.*)

Sanguisuga. See Leech.

SANSEVIERIA.

Sansevieria zeylanica, Willd., HEMODORACEAE.

THE BOW-STRING HEMP.

1043

Syn.—It seems doubtful if the Bengal plant (*S. ROXBURGHIANA*) should be viewed as the same as that met with in Ceylon.

Vern.—*Murba, murahara, murgli, BENG. ; Murva, SANS. ; Ghonasan-phan, MAHR. ; Murgali, DEC. ; Mallai, mangi, SALEM ; Tshama-cada, chaga, saga, TEL. ; Marul, TAM.*

A stemless bush with a rosette of 6 to 8 succulent leaves, the inner ones being often 4 feet long and ending in a long straight spine; scape rising from the centre 1 to 2 feet long, flowers greenish, white, erect, 4 to 6 together in clusters. (Compare with *Yucca gloriosa*.)

It makes its appearance on the coast of Bengal, extending to the Madras Presidency, common on the Coromandel Coast, in great abundance in Cumbum and in Dindigul district. It is also plentiful in Ceylon extending to Java, the coast of China, and Africa. It is probable that the Java and African plants are distinct species, the latter bearing the name of *S. guineensis*.

“The root is prescribed in the form of electuary in chronic cough and consumption.” (*Amsterd. Cat.*)

It is supposed to be an antidote to the bite of the *Ghonás* snake, hence the *Mahr.* name. (*Dymock.*)

SANTALUM.

Santalum album, Linn., SANTALACEÆ.

THE WHITE SANDAL-WOOD TREE.

Vern.—*Chandan, sufed-chandan*, HIND.; *Chandan*, BENG.; *Chandana, srikhanda*, SANS.; *Sandal*, DEC.; *Shandanak-kattai*, TAM.; *Gandhapuchekka*, TEL.; *Chandana, mutti*, MAL.; *Gandhaká-chokke*, KAN.; *Gandháscha-koda*, MAHR.; *Nasaphiyr, sandar*, BURM.

A small, evergreen tree of dry region of South India. "It grows naturally in the drier parts of Mysore, Coimbatore and Salem districts, extending south to Madura and north to Kolhapur, generally at an elevation of from 2,000 to 3,000 feet, in poor soils, and seeking the protection of hedgerows and scrub jungles." (Gamble.)

Sandal-wood is described in Hindu medical works "as bitter, cooling, astringent and useful in biliousness, vomiting, fever, thirst and heat of the body. An emulsion of the wood is used as a cooling application to the skin in erysipelas, prurigo and sudamina." (*Hindu Materia Medica*.) The wood, ground up with water into a paste, is commonly applied to local inflammations, to the temples in fevers, and to skin diseases to allay heat and pruritus. It also acts as a diaphoretic. A yellow volatile oil is distilled from the wood, which has been reported as a remedy for gonorrhœa. (*Pharm. Ind.*) It has of late been prescribed as a substitute for copaiba in modern European medicine. (*Pharmacographia*.) The author of *Makhsan-ul-Adwiya* describes the wood as cold and dry, cardiac, tonic, astringent, alexipharmac, antiaphrodisiac, a resolvent of inflammatory swellings, &c. He recommends an emulsion in bilious fever on account of its cooling and protective influence over the heart, brain, stomach, &c. As an external application a paste made with rose-water and camphor, or with sarcocolla and white of egg, may be applied to relieve head ache or to any kind of inflammatory swelling or skin affection. (Dymock.)

Santoninum. See *Artemisia maritima*, Linn., COMPOSITÆ.

SAPINDUS.

Sapindus Mukorossi, Gærtn., SAPINDACEÆ.

THE SOAP-NUT TREE OF NORTH INDIA.

Syn.—*S. DETERGENS*, Roxb.

Vern.—*Ritha, dodan, kammar*, HIND.; *Dodan*, PB.

A handsome, deciduous tree with grey bark, cultivated throughout North-West India and Bengal.

The seeds are used medicinally in salivation, epilepsy, and as an expectorant.

S. trifoliatus, Linn.

THE SOAPNUT TREE.

Syn.—*S. EMERGINATA*, Vahl.

Vern.—*Ritha*, HIND.; *Bara-ritha*, BENG.; *Arishta*, SANS.; *Findaque-Hindi*, ARAB.; *Ratah*, PERS.; *Ponnán kottai*, TAM.; *Kâkuâu-kayalu*, TEL.; *Rithé*, MAHR.; *Miávmen-sus-khâ-st*, BURM.; *Ritha*, BOM.

A large tree of Bengal, South India and Ceylon.

The fruit is described by Mahomedan doctors as hot and dry, tonic and alexipharmac; four grains of it mixed with wine or sherbet can cure

colic.

given i. hysteria and melancholy. Made into plaster with vinegar applied to poisonous bites and scrofulous swellings. The root is useful as an expectorant. (Dymock.)

The nut is used in paralysis and epilepsy. The powdered root is useful in bronchitis, &c. The nut rubbed into a lather with water is said to be an antidote for snake-bite. (Dr. Emerson.)

SAPONARIA.

Saponaria Vaccaria, Linn., CARYOPHYLLÆ.

Syn.—*Gypsophila Vaccaria, W. & A.*

Vern.—?

Met with in wheat fields throughout India and in Tibet and Sind.

"The mucilaginous sap of the plant is used as soap by the natives for washing clothes, and is said to be an efficacious cure for itch." (Murray.)

SARACA.

Saraca indica, Linn., LEGUMINOSÆ.

Syn.—*JONESIA ASOKA, Roxb.*

Vern.—*Asok, HIND.; Beng.; Asoka, SANS.; Aseka, CUTTACK; Diyera, timbelu, CINGH.; Ashunkar, KAN.; Fassoondi, asoka, BOM.; Thaw-ka-hpo, BURM.*

A tree of East Bengal, South India, Arracan and Tenasserim. Often cultivated for its handsome flowers.

The bark is much used by native physicians in uterine affections and especially in menorrhagia. A decoction of the bark in milk is generally prescribed. (Hindu Mat. Med.)

The Bombay gardeners call the *Guatteria longifolia* (Anonaceæ) "Asoka," and have an idea that it is the male of *Saraca indica*. (Dymock.)

Sarcocolla. See *Astragalus, Sp., LEGUMINOSÆ.*

SARCOSTEMMA.

Sarcostemma brevistigma, Wight & Arn., ASCLEPIADEÆ.

Syn.—*ASCLEPIAS ACIDA, Roxb.*

Vern.—*Somalata, HIND., BENG.; Soma, SANS., BOM.; Tiga-tikumoodoo, TEL.; Muwa-heeriya, CINGH.*

Met with in Deccan Peninsula, also in dry rocky places.

Water passed through a bundle of *Somalata* and a bag of salt will extirpate white ants from a field watered by it. The ancient Hindus used to prepare an intoxicating liquor from the juice of the plant mixed with barley and ghee. (Birdwood.)

Sarsaparilla, Indian. See *Hemidesmus indicus, R. Br., ASCLEPIADEÆ.*

S. Jamaica. See *Smilax officinalis, Hunb. Bonpl. & Kunth. LILIACEÆ.*

HERB.

SASSAFRAS.**1055 Sassafras officinale, Nas., LAURINÆ.****SASSAFRAS.****Syn.—LAKURUS SASSAFRAS, Linn.**

A tree, 20 to 40' feet high, native of the forests of North America, from Canada to Florida.

The dried root is imported into India and used medicinally for its alternative, tonic, stimulant and sudorific properties. It is useful in chronic rheumatism, secondary syphilis, scurvy and skin diseases. The volatile oil obtained by distillation of the wood is stimulant, carminative and diaphoretic. (*Pharm. Ind.*) In British practice it is only given in combination with Sarsaparilla and guaiacum.

SAUSSUREA.**1056 Saussurea candicans, Clarke, COMPOSITE.****Syn.—APLOTAXIS CANDICANS, DC.; CNICUS CANDICANS, Wall.; CARDUUS HETEROMALLUS, Don.****Vern.—Batula, kalt siri, PB.**

Found in sub-tropical and temperate Western India and the Himalaya, from the Salt Range, Hazara and Kashmir to Bhutan, altitude 2,000 to 7,000 feet.

The seeds are collected in the Punjab for the drug-sellers. (*Dr. Stewart.*)

1057 S. Lappa, C. B. Clarke in Fl. Br. Ind.**THE COSTUS.****Syn.—AUCKLANDIA COSTUS, Falc.; APLOTAXIS LAPPA, DCNE.****Vern.—Köt, kot, kust or kust-ta'k, HIND.; Pachak, kur, BENG.; Kushtha, SANs.; Kostum, putchuk, TAM.; Changala, kustum, TEL.; Kust, ARAB; Upaleta, GUZ.; Goda mahanel, CINGH.; Sepuddy, MAL.**

It would seem that for a long time Costus Root or *kust* was referred to a species of *Scitamineæ*, most probably from the resemblance of the scent to that of Orris root. The genus to which it was attributed received the name of *Costus*, the perfume being said to be obtained from *C. arabicus*, Willd. The common and elegant plant of our jungles *Costus speciosus*, Sm., was supposed to be nearly allied to the hypothetical species *C. arabicus*, but to be scentless. It is remarkable that while it has now been clearly proved that the plants which belong to the genus *Costus* have nothing to do with the *Costus* root of the ancients, the vernacular names *Keo*, *kust* should in Bengali be given to *C. speciosus*, names which are also applied to the true *Costus*. The resemblance of the root to Orris or Iris, a plant nearly allied to *Costus speciosus*, is another remarkable coincidence. Falconer in *Linn. Soc. Trans.*, Vol. XIX, Part I, p. 23 (1842), proved beyond doubt that the *kust* of Upper India was the root of what he called *Aucklandia Costus* (since reduced to *Saussurea Lappa*), and he concluded that this was the *Costus* of the ancients from the following reasons :—

“ 1st—It corresponds with the descriptions given by the ancient authors.

“ 2nd—Coincidence of names; in Kashmir the root is called *koot* and the Arabic vernacular is said to be *kust*, both being given

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as synonyms by the Persian hakims; they are also the names by which the medicine is known in all the bazaars of Hindustan Proper; in Bengal the Kashmir root is called *Patchak*, and it appears by a note in Dr. Royle's illustrations that *Garcia ab Horto* gives *Pucho* as the Malay synonym of *Costus Arabicus*.
"3rd—*Koot* is used at the present day for the same purposes in China, as *Costus* was formerly applied to by the Greeks and Romans.

"4th—The direct testimony of the Persians that *Kust* comes from the borders of India, and that it was not a product of Arabia.

"5th—The commercial history of the root gathered in Kashmir under the name of *Kust*." (Dr. Dymock's *Mat. Med.*)

"This root is collected in enormous quantities in the mountains of Kashmir, whence it is conveyed to Calcutta and Bombay, and thence shipped for China. The drug has a pungent, aromatic taste, with an odour resembling that of orris root. There is an excellent account of it, with a figure, in Professor Guibourt's *Histoire des Drogues* tome iii, p. 25. (*Science papers by D. Hanbury*, 257.) *Costus Root* is remarkably similar to *Elecampsane* both in external appearance and structure. *Costus* is an important spice, incense and medicine in the east from antiquity down to the present day; it would be of great interest to examine it chemically with regard to *Elecampsane*." (*Pharmacographia*.)

Kust is collected in large quantities in Kashmir and exported to the Punjab, where it finds its way all over India and is shipped from Bombay and Calcutta to China and the Red Sea, a small quantity finding its way to Europe. Falconer describes two forms *kust-i-talk* and *kust-i-sheereen*, the latter being the chief article of commerce.

Kust has been used in Hindu medicine from the earliest ages. It is said to be aphrodisiac and tonic, and useful in diseases arising from deranged air and phlegm, also in asthma and for resolving tumours (*Meer Muhammad Husain*). It was formerly smoked as a substitute for opium. U. C. Dutt, in his *Hindu Materia Medica*, states that the "root is described as aromatic, stimulant and useful in cough, asthma, fever, dyspepsia, and skin disease. Mr. Baden-Powell gives an interesting summary of the uses of *kust*; the dried powder is the principal ingredient in a stimulating ointment for ulcers; it is a useful hair-wash; it is used as an ingredient in a stimulating mixture for cholera; the root is a valuable perfume and is a preservative to woollen cloths. It imparts a peculiar odour to Kashmir goods. It is exported in enormous quantities to China, where it is used in incense similar to the manner the *Costus* was used by the Greeks and Romans.

Savanilla Rhatany. See *Krameria Ixina*, *Linn.*, *POLYGALÆ*.

Savine, Common. See *Juniperus Sabina*, *Linn.*, *CONIFERÆ*.

SAXIFRAGA.

Saxifraga ligulata, Wall, var. *ciliata*, Royle, *SAXIFRAGACEÆ*.

Vern.—*Bat pia, popal, shafruchi, banpatrak, dakachra, PB.*; *Pashanbheda, Bom.*

Met with in temperate Himalaya, from Bhutan to Kashmir, altitude 7,000 to 10,000 feet, also common in Khásia mountains, altitude 4,000 feet.

The root is used as a tonic in fevers, diarrhoea and cough, and also as an antiscorbutic. It is bruised and applied to boils and also in ophthalmia.

SCOPOLIA.

It is also considered absorbent and given in dysentery. (Atkinson : Dr. Stewart.) In Sind the root is rubbed down and given with honey to children when teething.

Scammony. See *Convolvulus Scammnia*, *Linn.*, CONVOLVULACEAE.

SCILLA.

- 1059 **Scilla hyacinthoides**, *Linn.*, LILIACEAE.

Syn.—*LEDEBOURIA HYACINTHOIDES*, Roth.

Vern.—*Bhukhanda*, *lakana ranakanda*, BOM.

The plant is met with in dry, sandy plains in Masulipatam, Madras, both Concans and Bundelkhand.

The bulbs possess a bitterish, nauseous, acrid taste, and are employed in South India for the relief of strangury and fever in horses. (Ainslie.)

They were used as a substitute for squills at the Bombay Medical Store Depot for many years, and appear to have been found quite as efficient as those of *Urginea Indica* now in use. (Dymock.)

S. indica, Roxb. See *Urginea indica*, Kunth.

SCINDAPSUS.

- 1060 **Scindapsus (Pothos) officinalis**, Schott., AROIDEAE.

Vern.—*Gaj-pipli*, *Bari-pipli*, HIND.; *Gaja-pipuli*, BENG.; *Gaja-pippali*, SANS.; *Hatti-pipli*, DEC.; *Atti-tippili*, TAM.; *Enuga-pipalu*, TEL.; *Atti-tippili*, MAL.; *Dodda-hippali*, KAN.; *Thora-pimpli*, MAHR.; *Motto-piper*, GUZ.

Common in many parts of India.

The dried fruit is a stimulant, diaphoretic and anthelmintic. (*Pharm. Ind.*) It is also aromatic and carminative, and useful in diarrhea, asthma and other affections caused by deranged phlegm. (*Hindu Mat. Med.*)

SCIRPUS.

- 1061 **Scirpus Kysoor**, Roxb., CYPERACEAE.

Vern.—*Kusuru*, HIND., *Kesur*, BENG.; *Kasruha*, SANS.

Met with in Bengal.

Used medicinally.

SCOPOLIA.

- 1062 **Scopolia lurida**, Dunal, SOLANACEAE.

Syn.—*ARISODUS LURIDANS*, Link. & Otto.

Vern.—?

An herbaceous plant of the Himalaya. The leaves when bruised emit a tobacco-like flavour.

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PUS.

A tincture of the leaves, if administered, produces dilatation of the pupil. (*Pharm. Ind.*)

Scopolia praeculta, *Dunal.* See *Physochlaima praeculta*, *Hook. f.*, SOLANACEAE.

Sea-foam.

The above name is a translation of the Sanskrit word *Samudra-phena*, which is applied to the bone of the cuttle fish, used in making tooth-powder.

Sebestens. See *Cordia*.

SECALE.

Secale cereale, *Linn.*, GRAMINEAE.

COMMON RYE; ERGOT.

Cultivated in many parts of Europe.

Ergot is stimulant, its action being chiefly directed to the uterus and the genito-urinary system; hence it is highly valued as a parturient and emmenagogue. It is supposed to be astringent. (*Pharm. Ind.*)

1064

1065

SECAMONE.

Secamone emetica, *Br.*, ASCLEPIADAE.

A climbing shrub, common in many parts of India.

Regarded by the natives as possessing powerfully emetic properties. (*Pharm. Ind.*)

SEMECARPUS.

Semecarpus Anacardium, *Linn. f.*, ANACARDIACEAE.

THE MARKING-NUT TREE.

Vern.—*Bhela*, *bhilaván*, HIND.; *Bhela*, *bhelatuki*, BENG.; *Bhallia*, URIYA; *Kongki*, LEPCHA; *Bhallaítaka*, SANS.; *Habbul-fahm*, ARAB.; *Biládúr*, PERS.; *Bhilavan*, DEC.; *Shen-kottai*, TAM.; *Jidi-vittulu*, TEL.; *Cherun-kuru*, MAL.; *Girá*, KAN.; *Biba*, MAHR.; *Bhilamu*, GUZ.; *Khisí*, BURM.; *Bibva*, BOM.

A deciduous tree of the Sub-Himalayan tract from the Sutlej eastward, ascending to 3,500 feet, and the forests of India, extending to Chittagong but not to Burma.

"The acrid juice of the marking-nuts is a powerful vesicant, and is often employed by the natives for producing fictitious marks of bruises. The ripe fruits are regarded as acrid, heating, stimulant, digestive, nervine and escharotic, and are used in dyspepsia, piles, skin diseases, nervous debility, &c." (*Hindu Mat. Med.*) "The Mahomedan doctors consider the juice to be hot and dry, useful in all kinds of skin diseases, palsy and other diseases of the nervous system. Externally it is applied to cold swellings. In Goa, the nut is used internally in asthma after having been steeped in butter-milk, and is also given as a vermfuge. The juice is also given in scrofulous, venereal and leprous affections." (*Dymock*) The bruised nut is applied to the os uteri by the native women to procure abortion. (*Pharm. Ind.*)

1066

SESAMUM.

SENECIO.

- 1067 *Senecio densiflorus*, Wall., COMPOSITÆ.

Syn.—*S. ANGULOSUS*, Wall.

Vern.—*Chitawdia*, PB.

Found in Central and Western Himalaya, from Nepal to Bhutan, altitude 5,000 to 7,000 feet; Khâisia Mountains, altitude 4,000 to 6,000 feet; Burma.

The leaves are applied to boils. (Dr. Stewart.)

- 1068 *S. tenuifolius*, Burm.

Syn.—*S. LACINIOSUS*, Arn.

Vern.—*Sanggye*, *mentog*, *nimbdr*, PB.

Met with in Western Peninsula; on the dry hills of the Western Ghâts from the Concan southward.

Mr. Honigberger states that it is officinal in Kashmir. The *nimbar* of the Lahore drug-sellers may probably be the produce of this plant. (Dr. Stewart.)

Senega. See *Polygala senega*, Linn., POLYGALEÆ.

Senna. See *Cassia*.

Serpentary root. See *Aristolochia serpentaria*, Linn., ARISTOLOCHIACEÆ.

- 1069 **Serpent poison.**

SESAMUM.

- 1070 *Sesamum indicum*, Linn., PEDALINEÆ.

GINGELLY OR SESAME OIL; BENNÉ-OIL, HUILE DE SESAME, Fr.; SESAMÖL, Germ.

Vern.—*Mithâ til*, *krishna-tîl*, HIND.; *Til*, BENG.; *Tali*, SANS.; *Simsim*, ARAB.; *Kunjad*, PERS.; *Wal lenney*, yellow-cheddie, TAM.; *Manchi-nâne noovooooloo*, TEL.; *Bârik-tîl*, DEC.; *Hnan*, BURM.

This plant is commonly cultivated in India, where it is indigenous. It is now cultivated in nearly every tropical country.

In Hindu medical works, three varieties of *til* seeds have been described,—black, white and red. The black kind is the best suited for medicinal use. "Sesamum seeds are considered emollient, nourishing, tonic, diuretic and lactagogue. They are said to be especially serviceable in piles, by regulating the bowels and removing constipation. Sesamum seeds ground to a paste with water are given with butter in bleeding piles. Sweetmeats made of the seeds are also beneficial in this disease. A poultice made of the seeds is applied to ulcers. Both the seeds and the oil are used as demulcents in dysentery and urinary diseases in combination with other medicines of their class." (*Hindu Mat. Med.*) "In decoction the seed is said to be emmenagogue; the same preparation, sweetened with sugar, is prescribed in cough; a compound decoction with linseed is used as an aphrodisiac; a plaster made of the ground seeds is applied to burns, scalds, &c.; a lotion made from the leaves is used as a hair wash, and is supposed to promote the growth of the hair and make it black; a decoction of the root is said to have the same properties; a powder made from the roasted and decorticated seeds is called *Rahises* in Arabic and *Arwah-i-kunjad* in

Persian; it is used as an emollient both externally and internally. (*Dymock.*) Sesamum oil has been employed as a substitute for olive oil in the preparation of the Linimentum calcis. The seeds if taken largely are capable of producing abortion. In amenorrhœa a warm sitz-bath containing a handful of seeds has been found very efficacious. (*Pharm. Ind.*)

SESBANIA.

Sesbania aculeata, Pers., LEGUMINOSE.

Vern.—*Brikut-chakramed*, HIND.; *Dhanicha*, BENG.; *Erra-jilgna*, TAM.; *Bhuiavali, rán shevari*, MAHR.

Met with in the plains from the West Himalaya to Ceylon and Siam.

Mentioned by Baden-Powell amongst his drugs.

S. ægyptiaca, Pers.

Syn.—*ÆSCHYNOMENE SESBAN*, Linn.

Vern.—*Jöt, ráśin*, HIND.; *Gayanti*, BENG., SANS.; *Ravasin*, DEC.; *Shevari*, MAHR.; *Jait, jaintar*, PB.; *Chempai*, TAM.; *Sómani*, TEL.; *Chompa*, MAL.

Found in the plains from the Himalayas to Ceylon and Siam, ascending to 4,000 feet in the North-West.

The seeds are applied in ointment to eruptions, for which the juice of the bark is also given internally. They are also said to be stimulant emmenagogues. The leaves are applied in the form of a poultice to hydrocele and rheumatic swellings.

S. grandiflora, Pers.

Syn.—*ÆSCHYNOMENE GRANDIFLORA*, Linn.; *AGATI GRANDIFLORA*, Desv.; *CORONILLA GRANDIFLORA*, Willd.

Vern.—*Basna*, HIND.; *Bak*, BENG.; *Vaka*, SANS.; *Bagfal*, SUNDERBANS; *Agasta*, MAHR.; *Agati*, TAM.; *Avisi*, TEL.; *Agase*, KAN.; *Ponkpan*, BURM.

A short-lived, soft-wooded tree, cultivated in South India, Burma, and in the Ganges Doab; cultivated in Bengal for its flowers, used in worshipping gods.

The bark is very astringent and is recommended as a tonic. An infusion of the leaves may be used as a cathartic. The juice of the leaves is a common remedy for nasal catarrh and headache; and for this purpose it is blown up the nostrils when a copious discharge of fluid relieves the pain and weight in the frontal sinuses. The leaves are also said to be aperient. (*Dymock.*) An infusion of the bark is given in small-pox. (*Amsterd. Cat.*)

SESELI.

Seseli indicum, W. & A., UMBELLIFERA.

Syn.—*LIGUSTICUM DIFFUSUM*, Roxb.; *CNIDIUM DIFFUSUM*, DC.

Vern.—*Banjowan*, BENG.

Met with in the plains of India, from the foot of the Siwaliks to Assam and Coromandel; frequent in Central Bengal.

Seed used as a medicine for cattle. It is also said to be carminative.

SIDA.

SETARIA.

1075 Setaria italica, Beauv., GRAMINEÆ.

ITALIAN MILLET.

Vern.—*Kakun, kangni, kauni, tangan*, HIND.; *Kakni*, BIJNOR; *Kangu*, SANS.; *Kangu, kora*, BENG.

This plant has probably originated from China, Japan and the Indian Archipelago.

Kakun is much esteemed as an article of human food, though it is sometimes objected to for its heating properties. It is popularly supposed to be of medicinal use in alleviating the pains of child-birth. (*Field and Garden Crops.*)

SHOREA.

1076 Shorea robusta, Gérin., DIPTEROCARPEÆ.

THE SAL TREE.

Vern.—*Sál, sákok, síla, sakhu, salwa*, HIND.; *Sal*, BENG.; *Sála, asva karna*, SANS.; *Kakahr*, ARAB.; *Laale-moab-bari*, PERS.; *Bolsal*, GARO; *Teturl*, LEPCHA; *Sakwa*, NEPAL; *Koroh*, OUDH; *Kungiliyam*, TAM.; *Gúgal*, TEL. (The Resin *Rál*, *dhuna*, HIND., BENG., BOM.)

A large, gregarious tree, often covering certain interrupted tracts, without the existence of connecting patches. Very abundant in Chutia Nagpur, and often associated with the Mahua. North-east moist and intermediate zones, sub-Himalayan tract, from the Beas to Assam, the eastern part of Central India, from the Ganges to the Godavari, extending westward to the longitude of Mandla, with an out-lying patch on and around the sandstone hills of the Pachmari range.

"The resin is regarded as astringent and detergent, and is used in dysentery and for fumigations, plasters, &c. The resin thrown over the fire gives out thick volumes of fragrant smoke, and is much used for fumigating rooms occupied by the sick." (*Hindu Mat. Med.*)

SIDA.

1077 Sida carpinifolia, Linn., MALVACEÆ.

Syn.—*S. ACUTA*, Burm.; *S. LANCEOLATA*, Roxb.

Vern.—*Karsta*, BENG., HIND.; *Pata*, SANS.; *Tupakariya*, MAHR.; *Malai-tángi*, *vaitta-trippi*, TAM.; *Chitimuti*, TEL.; *Malaínni*, MAL.; *Sirivadi-babila*, CINGH.

Generally distributed throughout the hotter parts of India.

"The root, which is not unlike the common liquorice root in appearance, is intensely bitter, and is prescribed in infusion, and in conjunction with ginger, in cases of intermittent fever. It is considered by the Hindu practitioners as a valuable stomachic and a useful remedy in chronic bowel complaints, the dose a small tea-cupful twice daily. The leaves, made warm and moistened with a little gingili oil, are employed to hasten suppuration. (*Ainslie.*) An infusion of the root is also diaphoretic and increases appetite. The expressed juice is used in the form of an electuary, in the treatment of intestinal worms. (*O'Shaughnessy.*) The roots of some of the species of *Sida* are regarded as cooling, astringent, tonic and useful in nervous and urinary diseases, and also in disorders of the blood and bile. (*Hind. Mat. Med.*)

Medicines.

Sida cordifolia, Linn.

Vern.—*Bijband*, HIND., PB.; *Borila, bala*, BENG.; *Batyālakṣaṇ* SANS.; *Chikana*, MAHR.

Generally distributed throughout tropical and sub-tropical India.

The seeds are reckoned aphrodisiac, and are administered in gonorrhœa. They are also given for colic and tenesmus. A decoction of the root with ginger is given in intermittent fever. It is also administered in fever accompanied by shivering fits and strong heat of body. The powder of the root-bark is given with milk and sugar for the relief of frequent micturition and leucorrhœa. (*Dr. Stewart; Hindu Mat. Med.*)

S. rhombifolia, Linn.

Vern.—*Atibala*, SANS.*

Widely distributed throughout India.

The medicinal properties of this species resemble those of other species.

Var. retusa, Linn.

Vern.—*Fangli-methi*, HIND., DEC.; *Ban-methi*, BENG.; *Hulbako-barri*, ARAB.; *Shanblide-barri*, PERS.; *Mayir-manikkam*, TAM.; *Mayilu-mani-kyam*, TEL.; *Koti-kan-babila*, CINGH.

The root is held in great repute by the natives in the treatment of rheumatism. (*Pharm. Ind.*)

Var. rhomboidea, Roxb.

Vern.—*Mahábála*, SANS.; *Svet-berela*, BENG.; *Athi-balla-chettu*, TAM.

A small weed growing in the rainy season, abundant in North Bengal. Medicinal properties resemble those of other species.

S. spinosa, Linn.

Syn.—*S. ALBA*, Linn.

Vern.—*Gulsakari*, HIND. *Nágabalá*, SANS.

Found in the lower parts of India, from the North-West Provinces to Ceylon.

Pertakes more or less of the medicinal properties of the other species of *Sida*.

silajatu.

The term is applied to certain bituminous substances said to exude from rocks during the hot weather. It is regarded as a powerful alterative tonic, and is considered specially useful in urinary diseases, diabetes, gravel, anaemia, consumption, cough and skin diseases. (*Hindu Mat.*)

silver. See *Argentum*.

sinapis alba, Linn. See *Brassica alba, H.f. & T.*, CRUCIFERA.

S. indica, the seeds of *Brassica juncea, H.f. & T.*

S. juncea, Linn. See *Brassica juncea, H.f. & T.*

S. nigra, Linn. See *Brassica nigra, Koch.*

1078

1079

1080

1081

1082

1083

~~SMILAX.~~**SISYMBRIUM.**

- 1084 Sisymbrium Irio, Linn., CRUCIFERÆ.**

Vern.—*Khubbhalan*, HIND.; *Gangli-sarson*, PB.; *Khakshi*, PERS., BOM.

Found in North India, from Rajputana to the Punjab.

The seed is stimulant and restorative, and used externally as a stimulating poultice. It is also said to be febrifuge. (*Dynock*; *Dr. Stewart.*)

SKIMMIA.

- 85 Skimmia Laureola, Hook. f., RUTACEÆ.**

Vern.—*Ner*, *barré*, *shalangli*, PB.

Met with throughout the temperate Himalaya, from Marri to Mishmi, altitude 6,000 to 10,000 feet, and Khásia mountains, altitude 5,000 to 6,000 feet.

The leaves have an orange-like smell when crushed, and are burnt near small-pox patients with a view to curative effects. (*Dr. Stewart.*)

SMILAX.

- 1086 Smilax China, Linn., LILIACEÆ.**

CHINA ROOT.

Vern.—*Chobchini*, HIND.; *Chobachini*, SANS.

"The plant is a native of Japan, the Loochoo Islands, Formosa, China, Cochin China, also of Eastern India, as Khásia, Assam, Sikkim, Nepal." (*Pharmacographia.*)

China root was formerly held in great repute, but it has in England fallen into complete disuse. In China and India, however, the root is still valued as a remedy for rheumatic and syphilitic complaints, and also as an aphrodisiac and demulcent.

- 1087 S. glabra, Roxb.**

Vern.—*Bari-chobchini*, HIND.; *Harind-shuk-china*, BENG.

Indigenous to Sylhet and the adjacent Garo country.

The decoction of the root is used by the natives in the treatment of syphilitic affections.

- 1088 S. lanceæfolia, Roxb.**

Vern.—*Hindi-chobchini*, HIND.; *Gutea-shuk-china*, BENG.

Indigenous to East Bengal. The large tuberous roots are so like those of *S. China*, *Linn.*, as not to be distinguished by the eye. (*Roxburghh.*)

The juice of the fresh root is taken inwardly for the cure of rheumatic pains, and the refuse, after extracting the juice, applied to the affected parts. (*Roxburghh.*)

- 1089 S. officinalis.**

JAMAICA SARSAPARILLA.

Native of Central America.

The dried root is imported into Great Britain from Jamaica. It is an alterative tonic, useful in syphilitic and chronic rheumatic affections. It has also been employed in chronic affections of the liver, and long standing diseases, especially those of a syphilitic character. (*Pharm. Ind.*)

Smilax ovalifolia, Roxb.

Vern.—*Jangli-aushballi*, HIND.; *Koomarika*, BENG.; *Gootes, gootwel*, MAHR.; *Malaii-tamarai*, TAM.; *Konda-tamara*, TEL.; *Kal-tamara*, MAL.; *Kuku*, BURM.

Abounds in the low jungles in the Madras and Malayan Peninsulas.

The root, resembling *Vera Cruz Sarsaparilla*, in physical characters, was used as a substitute but with unsatisfactory results. (*Pharm. Ind.*)

It is the country *Sarzparilla* of the Portuguese in Goa. (*Dymock.*)

Soap (Sapo).

Hard—Prepared from olive oil and soda and used in medicine for the preparation of plasters and liniments : *soft*—Made with olive oil and potash, is emollient and detergent; used externally in certain skin diseases, and is an ingredient in *Linimentum Terebinth.*

Soap-nut. See *Sapindus trifoliatus, Linn.*, SAPINDACEÆ.**Sodium.**

SODA.

SOLANUM.***Solanum dulcamara, Linn., SOLANACEÆ.*****DULCAMARA or BITTER-SWEET.**

Vern.—*Riba barik*, PB.

A shrub of temperate Western Himalaya, altitude 4,000 to 8,000 feet from Kashmir to Garwhal and Sikkim.

"Bitter nightshade," "manyglog," was an ingredient, together with wild sage and betony, of a drink which the Welsh 'Physicians of Myddfai' in the 13th century prepared for the bite of a mad dog. The stalks of bitter-sweet were also used in medical practice by the German physicians and botanists of the 16th century, one of whom *Tragus* (1552) has figured and described it under the name of *Dulcis amara* or *Dulcamarum*. (*Pharmacographia*.)

The dried young branches are alterative, diuretic and diaphoretic, useful in constitutional syphilitic affections, chronic rheumatism, especially in psoriasis, lepra and other obstinate skin diseases. *Dulcamara* is always administered in the form of a decoction. (*Pharm. Ind.*)

The dry fruit, *anab-us-salab*, (Foxes' grapes) is imported from Persia into Bombay. (*Dymock.*)

S. ferox, Linn.

Met with in the mountains of Eastern and South India, frequent in the tropical zone; from Assam to Ceylon and to Tenasserim.

Used medicinally by the natives, but its properties are very unimportant.

S. gracilipes, DCne.

Vern.—*Howd, marghi pal, kauri bati, kandiari*, PB.

An undershrub of West India, Punjab and Sind.

The fruit is said to be collected by the hakims to be applied to otitis. (*Dr. Stewart.*)

SOLANUM.

1096

Solanum indicum, Linn.

Vern.—*Barkanta, HIND.; Byākura, BENG.; Vrikhati, SANS.; Mulli, pap-para-mulli, TAM.; Kukha-machi, TEL.; Cheru-chunta, MAL.; Tibbatu, CINGH.; Ringani, dorli, BOM.*

An undershrub found throughout tropical India, very common, ascending to 5,000 feet.

"The root constitutes an ingredient of *Dasamula*, which is used largely in a great variety of diseases. It is regarded as expectorant and useful in cough and catarrhal affections." (*Hindu Mat. Med.*) It is prescribed by the Indian doctors, in cases of dysuria and ischuria, in the quantity of half a tea-cupful twice daily. Horsefield reports that the root taken internally manifests strongly exciting qualities. It is employed in difficult parturition and in toothache. It is also used in fevers, worm complaints, and colic. (*Sakharam Arjun.*)

1097

S. Melongena, Linn.

Syn.—*S. esculentum, Dunal.*

Vern.—*Bangan, HIND.; Begun, BENG.; Bengaa, PB.; Wangi, DEC.; Kuthirekai, TAM.; Vanga-shiri-vangu, TEL.; Kha-yan, BURM.; Bagana, vāngā, BOM.*

An herbaceous plant 2 to 8 feet; generally cultivated in India and in the warmer regions of the globe.

"In medicine the seeds are used as a stimulant, and the leaves as a narcotic." (*Atkinson.*)

1098

S. nigrum, Linn.

Syn.—*S. incertum, Dunal.*

Vern.—*Makoi, HIND.; Kākmachi, BENG.; Kukamachi, SANS.; Kambei, kākmach, mako, PB.; Munna-takali-pullum, TAM.; Kanchi-pundu, TEL.; Kamuni, ghāti, BOM.*

Found throughout India and Ceylon, altitude 0-7,000 feet.

"The berries of this plant are considered tonic, diuretic and useful in anasarca and heart diseases." (*Hindu Mat. Med.*) "In India the juice of *S. nigrum* is given in doses of from six to eight ounces in the treatment of chronic enlargement of the liver, and is considered a valuable alterative. The juice after expression is warmed in an earthen vessel until it loses its green colour and becomes reddish brown; when cool it is strained and administered in the morning. It acts as a hydragogue cathartic and diuretic." (*Dymock.*) Mr. Moodeen Shariff reports that an aqueous extract prepared from the leaves is useful in the treatment of dropsical affections. (*Pharm. Ind.*) Assistant Surgeon Sakharam Arjun says that a syrup is prepared from the plant useful as a cooling drink in fevers. It also acts as an expectorant and diaphoretic.

1099

S. trilobatum, Linn.

Vern.—*Alarka, SANS.; Toodavullay, TAM.; Moond-lamoosteh, TEL.*

The root, leaves and tender shoots are used in medicine; the two former are bitter and prescribed in consumptive cases in the form of electuary, decoction and powder. The berries and flowers are given in cough. (*Ainslie.*)

1100

S. tuberosum, Linn.

THE POTATO; POME DE TERRE, Fr.; POME DE TERA, It.

Vern.—*Alu, HIND., BENG.; Alé, PB.; Wallarai kilangoo, TAM.; Ootalay gudda, TEL.; Batda, BOM.; Kata innala, CINGH.*

Extensively cultivated in India from the sea level up to nearly 8,000 feet.

"The tubers are occasionally used as a substitute for *Salep*. (*Atkinson.*)

Solanum verbascifolium, Linn.

Found throughout India in the tropical and sub-tropical zone.

Used medicinally by the natives, though its properties are unimportant.

S. xanthocarpum, Schrad.

Syn.—*SOLANUM JACQUINI*, Willd.

Vern.—*Kateli, katali, HIND.*; *Kantakari, BENG.*; *Kantakari, nidigdhiha, SANS.*; *Wardoba, mahori, PB.*; *Chundunghatrie, handay-kattiri, TAM.*; *Van-kuda, TEL.*; *Bhd-ringni, BOM.*

A very prickly, diffuse herb, found throughout India, from the Punjab and Assam to Ceylon and Malacca.

The root is much esteemed as an expectorant, and is used in cough, asthma, catarrhal fever and pain in the chest. *Kantakari* is used in medicine in various forms, such as decoction, electuary, *ghrita*, &c. A decoction of the root is given with the addition of long pepper and honey in cough and catarrh, and with rock salt and asafoetida in spasmodic cough." (*Hindu Mat. Med.*) The root has also diuretic properties. Fumigations with the burning seeds are in great repute in the cure of tooth-ache. (*Drury.*)

Fumigation with the burnt fruit is a favorite domestic remedy for tooth-ache. (*Dymock.*)

SOLENANTHUS.**Solenanthus, sp. BORAGINÆ.**

Vern.—*Lendi, tenwa, mulin, PB.*

Found in parts of the basins of the Chenab and Jhelum at 4,000 to 10,000, and in Ladak up to 16,000, feet.

The pounded root is applied to abscesses, and is exported to the plains. (*Dr. Stewart.*)

SONCHUS.**Sonchus arvensis, Linn., COMPOSITÆ.**

Syn.—*S. ORIXENSIS*, Roxb.

Vern.—*Sahadevi bari, HIND.*; *Bhangra, kala bhangra, PB.*; *Ban-pdlang, BENG.*

Met with throughout India, in wild and cultivated places, scarce in the plains, common in the Khâisia and Himalaya, ascending to 8,000 feet. Cattle are fond of every part of the plant which, on being wounded, discharges copiously a milky juice which thickens into a substance resembling opium. (*Roxb.*)

Similar to *Lactuca scariola*, *Linn.*, in medicinal properties.

SORGHUM.**Sorghum halepense, Pers., GRAMINEÆ.**

Vern.—*Baré, brakám, bardá, burwa, PB.*

A large grass common in parts of the Sewalik tract and in the outer hills to over 5,000 feet.

Cattle sometimes have fatal head affections if the grass be browsed by them. (*Dr. Stewart.*)

THUS.
1106 *Sorghum vulgare, Pers.*Vern.—*Jowar, Beng.; Jodri, chari, karbi, Pa.*Cultivated in many parts of the Punjab plains.
The grain is considered heating.

SOYMIDA.

1107 *Soymida febrifuga, Adr. Juss., MELIACEÆ.*

ROHUN TREE.

Syn.—*SWIETENIA FEBRIFUGA, Adr. Juss.*Vern.—*Rohan, HIND., BOM.; Rohan, BENG.; Patrângâ, SANS.; Thém-maram, TAM.; Chéva manu, TEL.*

Found in the hilly districts of North-West, Central and South India, extending southward to Travancore.

“The introduction of the Rohun bark into medical practice of Europeans is due to Roxburgh, who recommended the drug as a substitute for cinchona, after numerous trials made in India about the year 1791. At the same time he sent supplies to Edinburgh, where Duncan made it a subject of a thesis, which probably led to its being introduced into the *Materia Medica* of the Edinburgh *Pharmacopœia* of 1803, and of the Dublin *Pharmacopœia* of 1807.” (*Pharmacographia*.)

The bark is officinal, being astringent, tonic, aphrodisiac, and a powerful febrifuge, being an excellent substitute for the Peruvian Bark. The decoction is used in intermittent fevers and general debility, in the advanced stages of dysentery, in diarrhoea and in other cases requiring astringents. If taken in too large doses it is apt to derange the nervous system, occasioning vertigo and stupor. (Ainslie.)

Spartium Scoparium, Linn. See *Cytisus scoparius, Link.*,
LEGUMINOSÆ.*Spearmint. See Mentha viridis, Linn., LABIATE.**Sperm whale.* } See *Physeter macrocephalus, Linn., MAMMALIA.*
Spermaceti. }

SPHÆRANTHUS.

1108 *Sphæranthus indicus, Linn., COMPOSITÆ.*Syn.—*S. HIRTUS, Willd.; S. MOLLIS, Roxb.*— Vern.—*Mundi, HIND., BOM.; Munnuria, BENG.; Munditika, SANS.; Kamás ariyás, ARAB.; Kamáduriyás, PERS.; Mundi, DEC.; Kóttak; karandui, TAM.; Bóda-tarapú, TEL.; Miran-gani, attaká manni, MAL.*

Met with in Tropical Himalaya, ascending to 5,000 feet, from Kumaun to Sikkim. Also found in Assam, Sylhet, and southward to Ceylon and Singapore: common in rice-fields.

The plant is considered by the Hindus to have anthelmintic properties. The powder of the root is said to be stomachic, and the bark ground and mixed with whey is a valuable remedy for piles. Dr. Horsefield reports that in Java it is considered as a useful diuretic. The author of *Makhsan-ul-Adwiya* describes it as a powerful solvent and attenuant, and observes that the odour of the plant is perceived in the urine and perspiration of the patient. The drug is administered in bilious affections and for the dispersion of tumours. In the Punjab it is highly esteemed as alterative, depurative, cooling and tonic. (Dr. Stewart; Dymock.)

Spikenard, Indian. See *Nardostachys Jatamansi*, DC., VALERIANÆ.

SPILANTHUS.

Spilanthes Acmella, Linn. var. *oleracea*, Clarke, COMPOSITE.

Vern.—*Akurkura*, BOM.

Commonly cultivated in gardens in Bombay.

The whole plant is very acrid, but the flowerheads are especially so, having a hot, burning taste which causes profuse salivation. It is on this account that the plant has been named *Akurkura* by the gardeners. The name properly belongs to the pellitory root of the shops. The flower-heads are sometimes chewed to relieve toothache.

Spiritus vini Gallici.

FRENCH WINE ; BRANDY.

A powerful, diffusible stimulant.

SPINACIA.

Spinacia oleracea, Mill., CHENOPODIACEÆ.

COMMON SPINAGE.

Vern.—*Palki*, HIND. ; *Palang*, BENG.

Largely cultivated for its leaves, which are used as vegetable.

The seeds are cooling and useful in difficult breathing, inflammation of the liver, and in jaundice.

SPONDIAS.

Spondias mangifera, Pers., ANACARDIACEÆ.

THE HOG PLUM.

Vern.—*Amra, amara, ambodha*, HIND. ; *Amrá*, BENG. ; *Amritaka*, SANS. ; *Tangrong*, GARO ; *Darakhte-moryam*, PERS. ; *Kat múa*, TAM. ; *Aravi mamadi*, TEL. ; *Jangli am*, BOM. ; *Gway*, BURM.

Found growing in the Sub-Himalayan tract, ascending to 3,000 feet in Sikkim ; in the dry forests of South India and Burma ; rare in Central India.

The pulp of the fruit is acid and astringent, and is considered useful in bilious dyspepsia. The bark is sometimes used as a refrigerant medicine. (*Amsterd. Cat.* ; *Dymock.*) It is also useful in dysentery, and the juice of the leaves is applied to earache. (*Atkinson.*)

Spruce Fir. See *Abies excelsa*, Lamk., CONIFERÆ.

Spurge Laurel. See *Daphne Laureola*, Linn., THYMELÆCÆ.

SQUALUS.

Squalus Carcharius, Linn., PISCES.

WHITE SHARK.

Common in the Indian seas.

STER-
CULIA.

The oil extracted from the liver by heat is officinal, and is used as a substitute for 'Cod Liver' Oil. The great objection to it is its nauseous taste, which might be obviated by taking proper care in its preparation. (Pharm. Ind.)

Squill. See *Urginea Scilla*, Steinheil., LILIACEÆ.

STACHYS.

- III4 *Stachys parviflora*, Benth., LABIATE.

Vern.—*Kirimar, baggi-bati*, PB.

Common in many places, Hazara, the Salt Range, Trans-Indus, in Afghanistan from Kandahar to Ghuzni.

In the Salt Range the bruised stems are applied to the guinea-worm. (Dr. Stewart.)

STACHYTARPHA.

- III5 *Stachytarpha (Stachytarpetha) jamaicensis*, Vahl., VERBENACEÆ.

JAMAICA BASTARD VERBAIN.

Vern.—*Rata-nil-nakuta*, CINGH.

Dr. Birdwood simply mentions this plant amongst his drugs.

Star Anise. See *Ilicium anisatum*, Linn., MAGNOLIACEÆ

Starch. See *Triticum vulgare*, Villars, GRAMINEÆ.

STEPHANIA.

- III6 *Stephania hernandifolia*, Wall., MENISPERMACEÆ.

Syn.—*CISSAMPELOS HERNANDIFOLIA*, Willd. *Wall. Cat.* 4977, D., E., F., G., H., K.; *C. HEXANDRA*, Roxb.; *CLYPEA HERNANDIFOLIA*, W. & A.

Vern.—*A'knddi, nemuka*, BENG.; *Ambashthá, pátha*, SANS.

Met with from Nepal to Chittagong, Singapore and Ceylon.

The root is regarded as light, bitter, astringent and useful in fever, diarrhoea, urinary diseases, dyspepsia, &c. Sir W. O'Shaughnessy speaks highly of this plant, under the Bengali name *Neemooka*. The author of the Indian *Pharmacopœia* seems to be in confusion regarding the identification of the plant known under the name *Nemuka*. The confusion is due perhaps to the fact that *Cissampelos hernandifolia*, Wall, occurs both under *C. Pareira* Linn. and *Stephania hernandifolia*, Wall, in *Flora of British India*. But the matter clears up if we look to the other synonym *C. hexandra*, figured by Roxburgh as the *Nemuka* of Bengal.

STERCULIA.

- III7 *Sterculia urens*, Roxb., STERCULIACEÆ.

Vern.—*Gáhá, kálá, gálar*, HIND.; *Odla*, ASS.; *Pándráka, kándála*, MAHR.; *Kardá, Guz., Tabru*, TEL.; *Vellay pátali*, TAM.; *Kairu*, AJMR.

Sub-Himalayan tract from the Ganges eastward, common in forests throughout India and Burma.

The leaves and tender branches steeped in water yield a mucilaginous extract useful in pleuro-pneumonia in cattle.

The gum (*kará-gond*) is the country tragacanth of Bombay; it is used in medicine, but more largely in making sweetmeats. (Dymock.)

STEREOSPERMUM.*

Stereospermum chelonoides, DC., BIGNONIACEÆ.

Vern.—*Pader, padri, parral*, HIND.; *Parari*, NEPAL; *Bolsel*, GARO; *Dhar-maru*, BENG.; *Padri*, TAM.; *Tagada*, TEL.; *Kirsol*, MAR.; *Kall-udi*, KAN.; *Lunu-madala*, CINGH.; *Thakoppo*, BURM.

A large, deciduous tree of Bengal, Burma, Central and South India. The roots, leaves and flowers are used medicinally.

S. suaveolens, DC.

Syn.—BIGNONIA SUAVEOLENS, Roxb.

Vern.—*Pad*, HIND.; *Pádrul*, BENG.; *Pátulá*, SANS.; *Padri*, TAM.; *Kalagoru*, TEL.

A middle-sized flowering tree, native of Bengal.

"The flowers rubbed up with honey are given to check hiccup. The root bark is an ingredient in *dasamula*. It is regarded as cooling, diuretic and tonic, and is generally used in combination with other medicines. The ashes of the plant are used in the preparation of alkaline water and caustic pastes." (Hindu Mat. Med.)

Storax. See *Liquidamber Orientale*, Mill., HAMAMELIDÆ.

Stramonium. See *Datura Stramonium*, Linn., SOLANACEÆ.*

STREBLUS.

Streblus asper, Lour., URTICACEÆ.

Vern.—*Siora, karchanna, rísa*, HIND.; *Sheora*, BENG.; *Sahada, Uriya*; *Baranki*, TEL.; *Karera*, MAR.; *Mithi*, KAN.; *Ophna*, BURM.

A small, evergreen tree of the sub-Himalayan tract from the Beas eastward, Bengal, Central and South India, Burma and the Andaman Islands.

The milky juice is applied to cracked heels and sore hands, and has astringent and septic qualities. The bark in decoction is used as a lotion in fevers. (Atkinson.)

STRYCHNOS.

Strychnos colubrina, Linn., LOGANIACEÆ.

Vern.—*Kuchila lata*, HIND., BENG.; *Nágamusadi*, TEL.; *Módira-kanniram*, MAL.; *Goagari-lakei*, BOM.

A plant of West Deccan Peninsula, from the Concan to Cochin.

Its wood is supposed to constitute the *Lignum colubrinum* of old writers, the *Pao de Cobra* of the Portuguese, from its efficacy, imaginary or real, in the treatment of the most venomous snake-bites, even of the *Cobra de Capello*. According to Horsefield it has been employed in intermittent fevers. It is also used as an anthelmintic, to cure cutaneous

STRYCH-

NOS.

affections, and to alleviate the pain and swelling from confluent small-pox. In an overdose it occasions tremour and vomiting, but in smaller doses it may be useful as a vermifuge, and also in quartan agues. (*Pharm. Ind.*; *Dymock*.)

1122 Strychnos Ignatii, *Bergius*.

ST. IGNATIUS' BEAN.

Syn.—By an error the younger Linnaeus confused two plants forming the genus *Ignatia*, hence the beans of this plant bears the name *I. amara*, Linn.

Vern.—*Papita*, HIND., BENG., BOM.; *Kaya-pankottai*, TAM.

“A large, climbing shrub growing in Bohol, Samal and Cebu islands of the Bisaya group of the Philippines, and, according to Loureiro, in Cochin China, where it has been introduced.” (*Pharmacographia*.)

The drug is met with in the Indian bazars under the name *Papita*, a corruption of the Spanish name *Pepita*. It is described as alexipharmac, and a useful remedy in cholera. It is also given from 1 to 2 grains in asthma, dropsy, rheumatism, piles, &c. (*Dymock*.)

1123 S. Nux-vomica, *Linn.*

NUX VOMICA TREE.

Vern.—*Kuchlá*, HIND.; *Kuchilá*, BENG.; *Kupilu*, *kulaka*, SANS.; *Isáragi*, ARAB.; *Fuláse-máhi*, *kocholáh*, PERS.; *Kuchlah*, DEC.; *Ettik-kottai*, TAM.; *Mushti-vittulu*, TEL.; *Kanni-rak-kuru*, MAL.; *Mushti-bijá*, KAN.; *Kájra*, MAR.; *Kuchlá*, GUZ.; *Goda-kaduru-atta*, CINGH.; *Khabon*, BURM.; *Kajra*, BOM.

Found throughout tropical India, altitude 0—4,000 feet; rare in Bengal, common in Tenasserim and Madras.

“Nux vomica seeds produce a sort of intoxication, for which they are habitually taken by some natives as an aphrodisiac. Those who do so gradually become so far accustomed to this poison that they often come to one seed daily, which is cut into small pieces and chewed with a packet of betel leaf. Medicinally the seeds are used in dyspepsia and diseases of the nervous system.” (*Hindu Mat. Med.*) The author of *Makhsan-ul-Adwiya* recommends great caution with regard to the medicinal use of Nux Vomica, and says that it is very useful in palsy, relaxation of the muscles and tendons, debility and chronic rheumatism. It may be applied externally and given internally in doses of from 1 to 2 dangs. (*Dymock*.) The *Pharmacopæia Indica* describes the seed as a valuable nervine tonic and stimulant, and in overdoses a virulent poison, and recommends its use in paralytic and neuralgic affections, in atonic diarrhoea and chronic dysentery, also in habitual constipation, prolapsus of the rectum, spermatorrhœa, &c. It has also been employed in intermittent fevers, epilepsy, diabetes, anaemia, chlorosis and other affections. The bitter taste and highly poisonous action of this substance are chiefly due to the presence of strychnine and brucine, the proportion of the former varying from $\frac{1}{2}$ to $\frac{1}{4}$ per cent.

1124 S. potatorum, *Linn. f.*

Vern.—*Nirmali*, HIND., BENG.; *Kítaka*, *Ambu-prasáda*, SANS.; *Chil-binj*, DEC.; *Tetran-kottai*, TAM.; *Chilla-ginjálu*, TEL.; *Titrán-parala*, MAL.; *Chilli-bijá*, KAN.; *Nírmali*, MAR.; *Kamon-yeki*, BURM.

A tree attaining to 40 feet, found in the Deccan Peninsula, extending north-west to the Sone river, Prome and Ceylon.

"The use of the seeds for the purpose of clearing muddy water is as old as *Susruta*, who mentions it in his chapter on water. Medicinally they are chiefly used as a local application in eye diseases. The seeds are rubbed with honey and a little camphor, and the mixture applied to the eyes in lachrymation or copious watering from them. Rubbed with water and rock salt they are applied to chemosis in the conjunctiva." (*Hindu Mat. Med.*) "The seeds of this tree are devoid of poisonous properties, and are used in native practice as an emetic (*Ainslie*), as a remedy in diabetes (*Kirkpatrick*), gonorrhœa (*Taleef Shereef*), &c. Their chief use, however, is as a means of clearing muddy water, hence their Anglo-Indian name, *Clearing Nut*. Looked at in this point of view, they may be regarded as a valuable aid to medical officers and others during the marches of troops in India in the rainy season, when little but muddy water can be obtained. Dr. Pareira suggests that this property depends upon the albumen and casein which they contain. If the seeds be sliced and digested in water they yield a thick mucilaginous liquid, which, when boiled, yields a coagulum (albumen) and by subsequent addition of acetic acid, it furnishes a further coagulum (casein)." (*Pharm. Ind.*) Mahomedan writers describe them as cold and dry, that when applied externally to the abdomen they relieve colic; they also notice their use to strengthen the sight and as a remedy in snake-bite. (*Dymock*.)

Sturgeon. See *Acipenser Huso*, *Linn.*, *Pisces*.

STYRAX.

Styrax Benzoin, *Dryand*, *STYRACEÆ*.

BENZOIN TREE.

Vern.—*Lubán*, HIND. (*Luban* is more properly applied to *Olibanum*.)

Grows in the Malay Archipelago.

Yields the true "Gum Benzoin," which is used in medicine, in perfumery, and in the composition of incense. It is produced by incisions into the bark, and it occurs in lumps of small masses of tears or of a brownish mass with or without tears. It has an agreeable odour, and is soluble in rectified spirit, and in solution of potash. It contains from 76 to 80 per cent. of resin, a volatile oil, and an acid known as benzoic acid. The whitish varieties are generally used for medicinal purposes being used chiefly in pulmonary complaints. It is burnt as an incense by the Roman Catholics, Budhists, and Hindus in their worship. The smoke it gives out acts as a disinfectant and drives away mosquitoes and sandflies.

The *Pharmacopœia Indica* describes the resin as stimulant, expectorant, and when locally applied, stimulant. It is useful in chronic coughs and other chronic affections of the lungs, both internally and in the form of fumigation. It has also been employed in pyrosis, irritable states of the bladder, &c. (*Pharm. Ind.*)

S. officinalis, *Linn.*

TRUE STORAX. See under *Liquidambar*.

Vern.—*Usturak*, ARAB.

A native of Greece, Asia and Syria.

Yields a solid resin somewhat resembling Benzoin, of fragrant balsamic odour.

SUS.

SUÆDA.

- 1127 | Suaeda fruticosa, Forst., CHENOPodiaceæ.**
 Vern.—*Loonuk, choté lânee, usak lânee, PB.; Ushuk lânee, SIND.; Morasa, MAHR.*

Abundant in Sind and in the Central Punjab.

This is one of the plants from which *Sajji-khar* is prepared. It is sometimes subject to have woolly excrescences on the tips of its branches, which are mixed with an empyreumatic oil, and used as an application to sores on the backs of camels.

- 1128 | S. indica, Moq.**

Syn.—*SALSOLA INDICA, Willd.*

Vern.—*Ella-kâra, TEL.; Kharee-lânes, SIND.*

This is one of the plants which yield Alkaline ashes.

- 1129 | S. nudiflora, Moq.**

Vern.—*Morasa, Bom.*

Abounds on the sea coasts of India.

Yields *Sajji*, which see.

Sugar-cane. See *Saccharum officinarum, Linn., GRAMINEÆ.*

- 1130 | Sulphate of Iron.**

Powerful chalybeate tonic; astringent, emmenagogue, antiperiodic, and anthelmintic. In large doses, poisonons. Locally applied astringent, stimulant, useful in anaemia, chlorosis, amenorrhœa, leucorrhœa, ulcer of the stomach, enlargement of spleen, intermittent fevers, periodical hemi-craniæ, hypochondriasis, &c. Locally applied to erysipelatous surfaces, chancre, haemorrhoids, prolapsus of the rectum, cancer of the uterus, &c. (*Pharm. Ind.*)

- 1137 | Sulphur.**

Sublimed sulphur is alterative and diaphoretic in small, and mildly aperient in larger, doses. It is used both externally and internally in scabies and other cutaneous affections. It is internally prescribed in various forms of lead poisoning, ptalism, and mercurial tremors and palsy, chronic rheumatism, spasmodic asthma, angina pectoris, chronic stage of hooping cough and chronic bronchitis, chorea and scrofula. (*Pharm. Ind.*)

Sumbul or Musk-root. See *Ferula Sumbul, Hook. f., UMBELLIFERÆ*

SUS.

- 1132 | Sus Scrofa, Linn., PACHYDERMATA.**

THE HOG.

Domesticated in all parts of the globe.

The fat, deprived of its membranes and purified by heat is used as an emollient; it is never prescribed internally. Inunction with lard has been extensively employed in scarlatina, exanthemata, erysipelas and other external inflammations, bruises and sprains. (*Pharm. Ind.*)

Sweet Flag. See *Acorus calamus, Linn., AROIDÆ.*

SWERTIA.

Swertia Chirata, Ham., GENTIANACEÆ.

Syn.—GENTIANA CHIRAYTA, R. Fleming in Roxb. Fl. Ind.; AGATHOTES CHIRATA, D. Don.; OPHELIA CHIRATA, Griseb.

Vern.—Charayatah, HIND., DEC.; Qaqabussarirah, ARAB., PERS.; Shirat-kuchchi, nila-vimbu, TAMIL.; Nila vēm, TEL.; Nila-voppa, MAL.; Nela-bou, KAN.; Kiratatikta, bhunimba, SANS.; Chiratta, BENG.; Chirayita, MAR.; Chirayata, GUZ.; Sekhagi, BURM.; Chiratta, kiraita, BOM.

A small, erect, herbaceous plant 2 to 5 feet in height, twigs with four lines or quite round, leaves opposite and stem clasping, the lower 4 to 3 inches in length. Met with in temperate Himalaya, altitude 4,000 to 10,000 feet, from Kashmir to Bhutan, and Khásia Mountains, altitude 4,000 to 5,000 feet. It is nowhere gregarious nor so plentiful as other allied species, still curiously enough the true *chiretta* is always to be met with in the bazars of Bengal. (C. B. Clarke in Fl. Br. Ind.)

The medicinal herb, as met with in the bazars, consists of bundles of dried twigs of brownish colour, "and very bitter, but pleasant taste. The whole plant is used medicinally, but the root is said to be the most powerful. The natives consider it as tonic, stomachic and febrifuge, and prescribe a decoction or infusion of it, in the quantity of a small tea-cupful, twice daily." (Ainslie, Mat. Med. II, p. 373.)

Drury says it should not be taken as a decoction, but in infusion or watery extract or as a tincture. The boiling would, according to some others, injure the strength of the drug. *Chiretta* is much prized in India as a powerful tonic, pure bitter, without aroma or astringency. It is more bitter than English Gentian, and while little used in Europe it is reported to be especially serviceable in the dyspepsia of gouty subjects (Bentley & Trimen). The Sanskrit name *Kiratatikta* means "the bitter plant of the *Kiratas*, an outcast race of the mountaineers in the North of India." It is sometimes mentioned as *Naipála*, indicating its coming from Nepal. *Chiretta* possesses the property of a bitter tonic, but unlike most other medicines of this class, it does not constipate the bowels but rather tends to produce a regular action. It causes a free discharge of bile while promoting a more healthy action, hence its position in European practice as a tonic to gouty persons. In his *Hindu Materia Medica* U. C. Dutt says it is tonic, febrifuge and laxative, and is used in fever, burning of the body, intestinal worms and skin diseases. It is particularly useful as a tonic or mild febrifuge in fever. A powder containing about fifty ingredients and known as *Sudarsana churna* is much used in chronic febrile diseases by native doctors. It is an excellent bitter for children, and should be taken every morning, then discontinued for a time, thereafter to be resumed until the desired action has been produced. Moodeen Shariff Khan Bahadur and several other authors have drawn attention to the adulterants of this most valuable medicine, Those most frequently seen are *S. angustifolia*, Ham. *S. decussata*. Nimmo; *S. elegans*, Wight.

SYMPLOCOS.

Symplocos cratagooides, Hamilton, STYRACEÆ.

Vern.—Lé, ländar, loj, lash, Ps.; Lodh, KUMAUN; Loja, SUTLEJ.

A large shrub or small tree of Himalaya, from the Indus to Assam, between 3,000 and 8,000 feet, Khásia hills, hills of Martaban.

The bark is considered tonic. It is also used in ophthalmia. (Dr. Stewart.)

TALIS-
PATRA
II:35

Symplocos racemosa, Roxb.

Vern.—*Lodh*, HIND., BENG.; *Lodhra*, SANS., BOM.; *Chamiani*, NEPAL;
Palyok, LEPCHA; *Koiday*, MECHI; *Singyan*, BHUTIA.

A common, small tree of the plains and lower hills of Bengal and Burma, chiefly met with in dry forests.

"The bark is considered cooling, astringent and useful in bowel complaints, eye diseases, ulcers, &c. A decoction of the wood is used as a gargle for giving firmness to spongy and bleeding gums." (*Hindu Mat. Med.*) *Lodhra* is often used in Bombay in the preparation of plasters; it is supposed to promote the maturation and resolution of stagnant humours. In Europe it was formerly looked upon as a cinchona bark, and has been known at various times as 'Ecorce de latour,' 'China nova,' 'China Calafornica,' 'China Brasiliensis,' and 'China Paraguatan.' Drs. Charles and Kanai Lal De recommend the bark in 20 gr. doses mixed with sugar as a medicinal agent in menorrhagia due to relaxation of the uterine tissue; it should be given two or three times a day, for three or four days. It is considered that the drug has a specific action upon relaxed mucus membranes. (*Dymock*.)

Syzygium Jambolanum, DC., Wall. See Eugenia Jambolana, Lam., MYRTACEÆ.

TABERNÆMONTANA.

II:36

Tabernæmontana coronaria, Br., APOCYNACEÆ.

Vern.—*Chandni*, *taggai*, *taggar*, HIND.; *Tagar*, BENG.; *Tagara*, SANS.;
Asuru, NEPAL; *Krim*, LEPCHA.

An evergreen shrub 6 to 8 feet; cultivated throughout India; from the North West Himalaya in Kumaun, eastward and southward.

II:37

T. dichotoma, Roxb.

Syn.—*CERBERA MANGHAS*, Linn.

Vern.—*Pili karbir*, *kaner sard*, PB.

Found in the Deccan Peninsula, common in the Western Ghâts and Ceylon.

For medicinal properties see *Cerbera Odollam*, Gaertn.

TAGETES.

II:38

Tagetes erecta, Linn., COMPOSITE.

Syn.—*T. PATULA*, Linn.

Vern.—*Genda*, HIND., BENG.

If originally from Mexico, like tobacco, they have now become denizens of the east, and considered as indigenous, particularly in Persia and China. They blossom during the coldest season in the Botanic Garden at Calcutta.

In the *Amsterdam Descriptive Catalogue*, the flowers are said to be used to purify the blood, and as a remedy for eye diseases.

Talispatra. See Abies Webbiana, Lindl., CONIFERE.

• TAMARINDUS.

Tamarindus indica, Linn., LEGUMINOSE.

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THE TAMARIND TREE.

Vern.—*Amli, amli, imli, HIND.; Tintiri, SANS.; Tentul, BENG.; Chincha, MAHR.; Puli, TAM.; Chinta, TEL.; Karangi, MYSORE; Chinti, BOM.; Mayos, BURM.*

Cultivated throughout Burma and India as far north as the Jhelam.

"The ripe fruit is regarded as refrigerant, digestive, carminative and laxative, and useful in diseases supposed to be caused by deranged bile, such as burning of the body, costiveness, intoxication from spirituous liquors or datura, &c. The shells of the ripe fruit are burnt and their ashes used in medicine as an alkaline substance, along with other medicines of the sort. The pulp of the ripe fruit, as well as a poultice of the leaves, is recommended to be applied to inflammatory swellings." (*Hindu Mat. Med.*) Mahomedan physicians consider the pulp to be cardiac, astringent and aperient, useful for checking bilious vomiting, and for purging the system of bile and astut humours; when used as an aperient it should be given with a very small quantity of fluid. A gargle of Tamarind water is recommended in sore-throat. The seeds are said to be astringent; they are used as a poultice to boils. The leaves crushed with water and expressed yield an acid fluid, useful in bilious fever, and scalding of the urine; made into a poultice they are applied to reduce inflammatory swellings and to relieve pain. A poultice of the flowers is used in inflammatory affections of the conjunctiva; the juice expressed from them is given internally for bleeding piles. The bark is considered to have astringent and tonic properties. The natives regard the acid exhalations of the Tamarind tree injurious to health. (*Dr. Dymock's Mat. Med.*)

It was through the Arabians that the Tamarind was first made known to Europe. They gave it the name of *Tamare-Hindi*; (the Indian Date). Commercially there are two kinds of tamarinds, Brown or Red Tamarinds—the West Indian Tamarinds—the pulp preserved in sugar. This is the form chiefly sold in the shops in England. Black or East Indian Tamarinds. This is the black pulp as prepared and sold in India. The latter form is now largely used in Europe for medicinal purposes, being largely used in the preparation of *confectio Sennæ*. They are regarded as laxative, and in tropical countries are largely consumed in chatnies, and made into refreshing drinks. They are also said to be used for adulterating tobacco.

TAMARIX.

Tamarix articulata, Vahl., TAMARISCINAE.

Syn.—*T. ORIENTALIS*, Forsk.

Vern.—*Fards, farwa, marlei, PB.; Asrelo, SIND.* The Galls : *Chhotti-main HIND.; Samrat-ul-asal, ARAB.; Gamásak, gásbar, asbar, PERS.*

Found along rivers and the sea-coast, almost throughout India.

Yields galls which are smaller than those produced by *T. gallica*, Linn. They are employed as an astringent. The bark is bitter, astringent, and probably tonic. (*Pharm. Ind.*) The galls of this species are not three-angled but round, knotty, of the size of a pea, and of a yellowish brown colour. (*Dymock.*)

T. dioica, Roxb.

Vern.—*Lei, pilchi, PB.; Gas, ldo, SIND.; Lal jhau, BENG.; Jhan, HIND.*

Found along rivers and the sea-coast, almost throughout India. The twigs are used in medicine as astringent. (*Dr. Stewart.*)

Economic Products of India.

Tamarix gallica, Linn.

Vern.—*Sháhu*, HIND., BENG.; *Shávuhá, shavaka*, SANS.; *Asl*, ARAB.; *Gas*, PERS.; *Atru-shavukhu-maram*, TAM.; *Eru-saru-mánu*, TEL.; *Shávuhá-jháda*, GUZ. The Galla:—*Sumrat-il-társá*, ARAB.; *Gasbar*, PERS.; *Bara mai*, or *barri main*, HIND.; *Magiya-main*, BOM. The Manna:—*Gasangabin*, *gasanjabin*, ARAB., PERS., BOM.

A shrub or small tree common throughout India from the North-Western Himalaya to Burma and Ceylon near rivers and along the sea-coast.

The galls are used medicinally by the natives as astringent in place of Oak galls. A strong infusion of them has been recommended as a local application to foul, sloughing ulcers and phagedenic buboes. Their action is due to the tannic and gallic acid they contain. The natives also administer them internally in dysentery and diarrhoea. (*Pharm. Ind.*) The manna—*gasangabin*,—is considered detergent, aperient, and expectorant. It is imported into India chiefly from Persia. (*Dymock*.)

Tannic acid. See *Quercus infectoria*, *Olivier*, CUPULIFERÆ.

TARAXACUM.

1143 Taraxacum officinale, Wiggers, COMPOSITE.

DANDELION.

Syn.—T. DENS-LEONIS, Desf.; LEONTODON TARAXACUM, Linn.

Vern.—*Dádal, baran, kanphál, dudli*, PB.

Found throughout the Himalaya and Western Tibet, from 1,000 to 18,000 feet; Mishmi mountains.

The root is officinal, being alterative, tonic and cholagogue. It is useful in dyspepsia, chronic hepatic affections, especially in torpor and congestion of the liver, and in jaundice and chronic cutaneous diseases. (*Pharm. Ind.*) It is tonic, aperient and diuretic, and is said to have an almost specific action on the liver, by modifying and increasing its secretion. The dried root, when powdered, is frequently used mixed with coffee. When roasted and powdered, it has been used as a substitute for coffee. (*Bentley and Trimen*.)

TAXUS.

1144 Taxus baccata, Linn., CONIFERÆ.

YEW.

Syn.—T. NUCIFERA, Wall.

Vern.—*Sarap, bádar*, AFG.; *Birmi*, KASHMIR; *Tcheiray gulab*, NEPAL.

Himalaya, from the Indus to Bhutan, and the Khásia hills.

" The leaves contain a volatile oil, tannic and gallic acids, and a resinous substance called taxin. Yew leaves and fruits have been given for their emmenagogue, sedative and antispasmodic effects. Pareira says that therapeutically the yew appears to hold an intermediate position between Savin and Digitalis, being allied to the former by its acrid, diuretic, and emmenagogue properties, and to the latter by the giddiness, irregular and depressed action of the heart, convulsions and insensibility, which it produces. Yew is, however, reported to have one decided advantage over Digitalis by its effects not accumulating in the system, so that it is a much more manageable remedy than Digitalis. Besides its use as an

Medicines.

emmenagogue and sedative in the same cases as Savin and Digitalis are administered, it has also been employed as a lithic in calculus complaints, and as an antispasmodic in epilepsy and convulsions. According to Dr. Taylor, the yew tree is sometimes used by ignorant persons to cause abortion. At the present time, yew is never used in regular medical practice in Europe, the principal interest attached to it having reference to its poisonous properties. Thus, the leaves and young branches act as a narcotico-acrid poison, both to the human subject and to certain animals, but more especially to horses and cows. Fatal cases of poisoning have also occurred from swallowing the fruit. It is frequently stated that animals may feed upon the young growing shoots with impunity, but that when these have been cut off, and left upon the ground for a short time, they are then poisonous. This is an entirely erroneous notion, for yew shoots and leaves are poisonous both in a dried and fresh state. It seems certain, however, that the red, succulent cup of the fruit is harmless, for a fatal case of poisoning has been recorded of a child from swallowing the entire fruit with its contained seed; whilst other children, who had partaken of the fruit at the same time, but who had rejected all but the fleshy cup, suffered no ill effects." (*Bentley and Trimen.*)

Dr. Dymock informs me that the dried leaves and twigs of this plant constitute the *talispatr* of the Bombay bazars and druggists' shops. While this is no doubt correct, it is rather surprising that the plant *Taxus baccata* in no vernacular bears the name *Talisa*, a fact that would point to the name *talispatr* as but of modern application. Gamble says: "the bark is used in Kunawar as a substitute for, or mixed with, tea; the berries are eaten, and the leaves are exported to the plains as a medicine." In Europe the berries are (as already stated) regarded as poisonous, but in Manipur I have seen them eaten. The tree is common on the mountains bordering on Burma and the Naga Hills. A twig is worn by the young unmarried Naga females as a charm to prevent pregnancy—chastity being exceptional before marriage. It is remarkable that in Bengal the *talispatr*, as sold in the bazars, should be an *Abies*, a plant possessed of carminative, expectorant and stomachic properties, while in Bombay it should be the poisonous leaves of the yew which possess emmenagogue, sedative, and antispasmodic properties. See *Abies Webbiana*.

TECTONA.

Tectona grandis, Linn., VERBENACEÆ.

THE TEAK TREE.

Vern.—*Sagun*, HIND.; *Segun*, BENG.; *Singuru*, URIBA; *Tekku*, *tek*, TAM.; *Teku*, TEL.; *Jadi*, *tēga*, KAN.; *Jati*, MAL.; *Saka*, SANS.; *Saj*, *sal*, ARAB., PERS.; *Sagwan*, BOM.; *Kyún*, BURM.

Found in Central and South India, and Burma.

A plaster of the powdered wood is recommended in hot headaches and for the dispersion of inflammatory swellings; when taken internally it is said to be beneficial in dyspepsia, with burning of stomach. It also acts as a vermifuge. The ashes of the wood are applied to swollen eyelids and are said to strengthen the sight. The bark is an astringent, and the oil of the nuts promotes the growth of hair and removes itchiness of the skin. The flowers, according to Endlicher, are diuretic, and Gibson states that the seeds possess similar properties. The wood rubbed down with water into a paste allays the pain and inflammation caused by handling the Burmese black varnish *Thitsi* (*Melanorrhoea usitatissima*). It also deserves to be tried as a local application to inflammations arising from the action of the Marking Nut. (*Dymock; Pharm. Ind.*)

Economic Products of India.

‘*Elimi Fly.* See *Myiaaria Cichorii*, *Fabr.*, *COLEOPTERA*.

TEPHROSIA.

Tephrosia purpurea, *Pres.*, *LEGUMINOSE*.

Vern.—*Sarpunkha*, HIND.; *Ban-nil*, BENG.; *Sarapunkha*, SANS.; *Fangli-hu-thi*, DEC.; *BOM.*; *Kalluk-hay-atal*, TAM.; *Vempali*, TEL.; *Bansa*, PB.

Found in the tropical zone, spread universally from the Himalayas to Ceylon, Malacca and Siam, ascending to 4,000 feet in the North-West.

A copiously-branched, sub-erect perennial, 1 to 2 feet high, is used internally as a purifier of blood and considered cordial. An infusion of the seeds is given as a cooling medicine. (*Dr. Stewart.*) The plant is also described as a deobstruent and diuretic, useful in cough, tightness of the chest, bilious febrile attacks, obstructions of the liver, spleen and kidneys. In combination with *Cannabis sativa* leaves, it is prescribed in bleeding piles, and with black pepper as a diuretic. It is especially useful in gonorrhœa. (*Dymock.*)

TERMINALIA.

1147 *Terminalia Arjuna*, *Bedd.*, *COMBRETACEAE*.

Syn.—*PENTAPTERA ARJUNA*, *Roxb. Fl. Ind.*, II, 438; *P. GLABERA*, *Roxb.*, *P. ANGUSTIFOLIA*, *Roxb.*

Vern.—*Anjan*, *arjén*, *kahu*, HIND.; *Arjuna*, BENG., SANS.; *Vella marda*, *Vellai-maruda-marom*, TAM.; *Yermaddi*, TEL.; *Arjun*, MAR.; *Toukkyan*, BURM.

A large, deciduous tree of the Sub-Himalayan tract, Oudh, Bengal, Central and South India.

The bark of this tree is referred to by the Sanskrit writers under the names of *Arjuna* and *Kukubha*. They considered it to be tonic, astringent and cooling, and used it in heart diseases, contusions, fractures, ulcers, &c. In fractures and contusions with excessive ecchymosis, powdered *arjun* bark is recommended to be taken internally with milk. A decoction of the bark is used as a wash in ulcers and chancres.” (*Hindu Mat. Med.*)

The bark, as sold in the bazars, is generally used in the form of quills from $\frac{1}{2}$ to $\frac{3}{4}$ of an inch thick, and several inches long. It has a deep red colour, fibrous, with the inner surface finely striated. The wood is built up of thick fibre-like vessels.

1148 *T.-belerica*, *Roxb.*

Vern.—*Baherd*, *bhairak*, *behara*, HIND.; *Bohera*, BENG.; *Behara*, *yella*, BOM.; *Vibhitaki*, SANS.; *Babela*, *boleyleh*, PERS.; *Tani*, *tanrik-hay*, *hatti olispy*, TAM.; *Tani*, *tandi*, *taandi*, TEL.; *Thussein*, BURM.

A large, deciduous tree of the sub-Himalayan tract, from near the Indus eastward; forests of India and Burma.

“Beleric myrobalans are described as astringent and laxative, and useful in cough, hoarseness, eye diseases, &c. As a constituent of *tri-phala* or the three myrobalans, they are used in almost all diseases. The kernel of the fruits is said to be narcotic and astringent, and is used as an external application to inflamed parts.” (*Hindu Mat. Med.*) Mahomedan writers regard the beleric myrobalans as astringent, tonic, attenuant, and aperient, useful in dyspepsia and bilious headache, as also an astringent application to the eyes. The kernels are narcotic; the part used medicinally is the pulp of the fruit. (*Dymock.*)

Medicines.

TERMINALIA
LIA

The *Flora of British India* divides the forms of this species into three varieties, of which the following are the more important*synonym under each :—

1. Var. *typica*, leaves without glands at the apex of the petiole; *T. belerica*, Bedd.; *T. eglandulosa*, Roxb.; *T. Gella*, Dals.
2. Var. *belerica*, Roxb., leaves with two glands at the apex of the petiole; *T. microcarpa*, Decne.
3. Var. *laurinaoides*, Miq.

Terminalia Catappa, Linn.

THE INDIAN ALMOND TREE.

- Vern.—*Gangli-badam*, HIND.; *Badam*, BENG.; *Taru*, KAN.; *Navadum*, TAM.; *Vedam*, TEL.; *Adamarram*, MAL.; *Catappa*, MALAY.

A large, deciduous tree of the coast forests of the Andaman Islands, cultivated in most parts of India and Burma. Introduced most probably from Java.

The kernels yield upwards of 50 per cent. of a pure bland oil, which may be substituted for almond oil. Kept for a long time it deposits a large quantity of stearine. The bark is said to be astringent. (*Pharm. Ind.*)

T. Chebula, Retz.

- Vern.—*Harra*, *har*, *harara*, HIND.; *Hilitha*, ASS.; *Haritaki*, BENG., SANS.; *Silim*, LEPCHA; *Karedha*, URUVA; *Haira*, DEC.; *Kadakai*, TAM.; *Karaka*, *kadukar*, TEL.; *Alale*, MYSORE; *Pangah*, BURM.

A large, deciduous tree of the sub-Himalayan tract, from the Sutlej eastward, ascending to 5,000 feet; Bengal, Assam, ~~Uttagong~~, Central and South India.

The chebulic myrobalan was highly extolled by the ancient Hindus as a powerful alterative and tonic. It has received the names of *Prānaddh* or life-giver, *Sudhā* or nectar, *Bhishapriya* or physician's favourite, and so forth. Seven varieties of *haritaki* are described, of which two are at present recognised, the large ripe fruit called *haritaki* and the unripe fruit called *jangi haritaki*. A good *haritaki*, fit for medicinal use, should be fresh, smooth, dense, heavy, and round in shape. Thrown into water it should sink in it. Chebulic myrobalans are described as laxative, stomachic, tonic and alterative. They are used in fevers, cough, asthma, urinary diseases, piles, intestinal worms, chronic diarrhoea, constiveness, flatulence, vomiting, hiccup, heart diseases, enlarged spleen and liver, ascites, skin diseases, &c. In combination with emblic and beleric myrobalans, and under the name of *triphalā*, or the three myrobalans, they are extensively used as adjuncts to other medicines in almost all diseases. As an alterative tonic for promoting strength, preventing the effects of age and prolonging life, chebulic myrobalan is used in a peculiar way. One fruit is taken every morning with salt in the rainy season, with sugar in autumn, with ginger in the first half of the cold season, with long pepper in the second half, with honey in spring, and with treacle in the two hot months. (*Hindu Mat. Med.*)

T. tomentosa, W. & A.

- Vern.—*Asan*, HIND.; *Piasal*, BENG.; *Kurruppu-maruthi-maram*, TAM.; *Maddi*, TEL.; *Ain*, BOM.; *Toukkyan*, BURM.

A large, deciduous tree of the sub-Himalayan tract, from the Ravi eastward, ascending to 4,000 feet in places, Bengal, Central and South India and Burma.

A decoction of the bark is taken internally in atonic diarrhoea, and locally as an application to weak, indolent ulcers. (*Pharm. India.*)

Economic Products of India.

THALICTRUM.

When nicely polished, it resembles Walnut, and has been found one of the best woods for making stethoscopes at the Government Medical Store Depôt. (Dymock.)

TETRANTHERA.

1152 *Tetrantha laurifolia*, Jacq., LAURINEÆ.

Vern.—*Maida-lakri*, HIND., BOM.; *Maida, meda, gwa, rian*, PB.; *Garbi-jaur, singrauf, menda*, HIND.; *Suppattyok*, LEPCHA; *Kukurchita, Beng.*; *Maida-lakhi*, TAM.; *Narra alagi*, TEL.; *Ungdung*, BURM.

A moderate-sized, evergreen tree of Kumaun, Garhwal, Bengal, Burma, Central and South India.

One of the best known and most popular of native drugs, being used internally, on account of its demulcent properties, in diarrhoea and dysentery, and externally as an emollient application to bruises, &c. The oil from the berries is used in rheumatism; the bark triturated in water or milk or even dry is applied to bruises. (Dymock; Atkinson.)

1153 *T. monopetala*, Roxb.

Vern.—*Buro-kukurchitta*, BENG.; *Meda, gwa, singraf, sangran, marda*, HIND.; *Mendah*, GOND.; *Raimanti, kadmero*, NEPAL; *Sualu*, ASS.; *Narra mamadi*, TEL.; *Ungdung*, BURM.

A moderate-sized, evergreen tree of the sub-Himalayan tract from the Ravi eastward; Kumaun, Garhwal, Bengal, Burma, Central and South India.

The bark is mildly astringent, and has balsamic properties. It is used by the hill people in diarrhoea, and is also applied to wounds and bruises. (Ainslie.)

TEUCRIUM.

1154 *Teucrium Chamædrys*, Linn., LABIATE.

WALL GERMANDER.

One of the ingredients of the celebrated *Treake-farook* of the bazars, which is the representative of the *Mithridatum*, *Theriaca Andromachi* or *T.-Democrati* of the ancients. Originally, it consisted of but a few simples, but now contains so many as sixty-one, including opium. It is, in fact, a complete aromatic opiate, a dram of it being equal to one grain of opium. (Birdwood.)

THALICTRUM.

1155 *Thalictrum foliolosum*, DC., RANUNCULACEÆ.

Vern.—*Pilt-jari*, HIND.; *Gurbiani, pashmaran*, PB.; *Mameeran*, BOM.

A plant of temperate Himalaya, altitude 5,000 to 8,000 feet; Khásia hills, altitude 4,000 to 6,000 feet.

The root is tonic and aperient, useful in convalescence after acute diseases, in mild forms of intermittent fevers, and in atonic dyspepsia. 5 grains of powder, or 2 grains of the watery extract, given thrice daily, have in some cases prevented, and in several moderated, the accession of fever, and at the same time acted gently on the bowels. (O'Shaughnessy, part i, 161.)

THEOBROMA.

Theobroma Cacao, Linn., STERCULIACEÆ.

THEOBROMA ; CACAO, or Coco or CHOCOLATE TREE.

The Chocolate tree is a native of parts of Brazil and other northern portions of South America, extending also into Central America as far north as Mexico.

A concrete oil, obtained by expression and heat from the ground seeds, is used as an emollient. (*Pharm. Ind.*) It is remarkable for having little tendency to become rancid, and hence has long been used in European pharmacy. It is well adapted for the preparation of suppositories and pessaries.

THESPESIA.

Thespesia populnea, Corr., MALVACEÆ.

THE TULIP or PORTIA TREE.

Vern.—*Paras-pipul, parsipu, HIND. ; Poresh, parash, paresh-pipal, BENG. ; Gardhabhanda, SANS. ; Poris, portia, pursa, TAM. ; Gangaraya, TEL. ; Bondi, GUZ. ; Sureya, CINGH. ; Bhendi, BOM.*

An exceedingly handsome tree, largely cultivated along roadsides, especially in Madras City. Indigenous to the coast forests of India, Burma, and the Andaman Islands.

The fruit yields a yellow, viscid juice, which forms a valuable local application in scabies and other cutaneous diseases in South India. The affected parts of the body are daily washed with a decoction of the bark. Ainslie says that a decoction of the bark is given internally as an alterative.

THEVETIA.

Thevetia nerifolia, Juss., APOCYNACEÆ.

THE EXILE OF YELLOW OLEANDER.

Syn.—*CERBERA THEVETIA, Linn.*

Vern. - *Pila-kaner, HIND., BOM., DEC. ; Kolkaphul, BENG. ; Pach-chai-alari, TAM. ; Pach-cha-gannru, TEL. ; Molami-yai-pán, BURM.*

The plant is commonly cultivated in tropical America, and has been introduced into India.

The milky juice of the tree is highly poisonous. Its bitter and cathartic bark is said to be a powerful febrifuge. The antiperiodic properties of the bark have been confirmed by Dr. G. Bidie and Dr. J. Shortt. It was tried in the form of a tincture in various kinds of remittent fever and with satisfactory results. In large doses it acts as an acrid purgative and emetic, and in still larger doses as a powerful poison. The kernels are very bitter, and when chewed produce a slight feeling of numbness and heat in the tongue. The oil extracted from them is said to be emetic and purgative. (*Pharm. Ind.*)

Thorn-Apple. See Datura Stramonium, Linn., SOLANACEÆ.

Thus Americana.

The concrete turpentine obtained from *Pinus Taeda, Linn., CONIFERÆ.*

THYMUS.

- 1160 *Thymus serpyllum*, Linn., LABIATE.

THYME.

Vern.—*Masho, rāngsār, marisha, Pb.*

Common in the Punjab Himalaya and Tibet from 5,000 to 15,000 feet, and in the Sulaiman Range.

" On the Chenab the seeds are given as a ' worm ' medicine, and Hossigberger states that the plant is officinal in diseases of the eyes and stomach. (Dr. Stewart.)

- 1161 T. Sp.?

Vern.—*Mishbi-tardmashia, fakhri, rang.*

" Imported from Persia. The odour and taste of the drug is pleasant, like peppermint, but sweeter. Properties stimulant and carminative. (Dymock.)

- 1162 *T. vulgaris*, Linn.

GARDEN THYME.

Vern.—*Ipar, HIND. ; Hashu, ARAB.*

A small, much-branched shrub, native of the Mediterranean countries of Europe from Portugal to Greece, including Corsica and the Balearic Islands.

" Oil of thyme is a useful and powerful local stimulant, and may be applied to a carious tooth by means of lint or cotton to relieve tooth-ache; or when mixed with olive oil or spirit, especially if combined with camphor, as a stimulating liniment in chronic rheumatism, sprains, bruises, &c. The chief consumption of oil of thyme is, however, in veterinary practice. (Bentley and Trimen.)

- Tiaridium indicum*, Lehm. See *Heliotropium indicum*, Linn., BORAGINE.

- 1163 Tin.

Vern.—*Vanga, SANS.*

Tin is purified by melting it over the fire and pouring the melted fluid into the milky juice of *Calotropis gigantea* (*Arka*). It is chiefly used in urinary disorders in a variety of forms. (Hindu Mat. Med.)

TINOSPORA.

- 1164 *Tinospora cordifolia*, Miers., MENISPERMACEA.

GULANCHA.

Syn.—*Cocculus cordifolius*, DC.

Vern.—*Gulancha, gul-bal, HIND. ; Gulancha, BENG. ; Guduchi, amrita, SANS. ; Gilb, ARAB. ; Gul-bal, PERR. ; Gul-bal, DEC. ; Shindil-kodi, TAM. ; Tipparige, gadichi, TEL. ; Amrita, MAL. ; Gulaveli, MAHR. ; Rasakinda, CINGH. ; Gulmail, gulos, giroli, BOM.*

Found in Bengal, Assam, Behar, Deccan, Orissa, the Carnatic, Malabar, Mysore and other parts of tropical India.

"The stem, leaves, roots and watery extract of this plant are all used in Hindu medicine. The entire plant is regarded as a valuable alterative and tonic. It is used in general debility, fever, jaundice, skin diseases, rheumatism, urinary diseases, irritability of stomach, &c. The fresh juice of the plant is taken with milk as a general tonic." (*Hindu Mat. Med.*) The root and stems are described in the *Pharmacopœia Indica* as tonic, antiperiodic, and diuretic, useful in mild forms of intermittents, in general debility after fevers and other exhausting diseases, and in secondary syphilitic affections and chronic rheumatism. "Speaking of its employment as an antiperiodic, Waring states, that he employed it in twenty cases of ordinary quotidian fevers in Burma; and in each case it prevented the accession of the cold stage but it did not appear to diminish the severity, or prevent the regular return of the hot stage, a peculiarity, he adds, not observed by him in the use of any other remedy of the same class. *Gulancha* is also regarded by the natives in certain parts of India as a specific for the bites of poisonous insects and venomous snakes." (*Bentley and Trimen.*)

Tinospora crispa, Miers.

Met with from Sylhet and Assam to Pegu and Malacca.

Possesses the bitterness, and probably the tonic properties, of *Gulancha*.

Tobacco. See *Nicotiana Tabacum*, Linn., SOLANACEÆ.

TODDALIA.

Toddalia aculeata, Pers., RUTACEÆ.

TODDALIA.

Vern.—*Kanj*, HIND.; *Dahan*, *Iakan*, RAJPUTANA; *Meinkara*, NEPAL; *Saphijirik*, LEPCHA; *Milkaranai*, TAM.; *Konda-kashinda*, TEL.; *Jangli kali mirachi*, BOM.

A large, scandent shrub, covered with prickles, met with on the Himalaya from Kumaun eastward to the Khasia hills, ascending to altitude 5,000 to 6,000 feet; also common throughout the Western Peninsula and Ceylon.

The root-bark is officinal, being an aromatic tonic, stimulant and antiperiodic; useful in constitutional debility, and in convalescence after febrile and other exhausting diseases. (*Pharm. Ind.*) Toddalia root under the name of Lopez root was formerly esteemed in European practice as a remedy for diarrhoea, but has long fallen into disuse. It is, however, regarded in India as a valuable stimulating tonic; it first obtained its reputation as a remedy in the remittent jungle fever, commonly known as hill-fever. Dr. Bidie, of Madras, says, he knows no single remedy in which active, stimulant, carminative and tonic properties are so happily combined as in this drug. In India it is usually administered in the forms of tincture and infusion." (*Bentley and Trimen.*)

Toddy. See *Borassus flabelliformis*, Linn., PALMÆ.

Tolu, Balsam of. See *Myroxylon Toluifera*, H. B. K., LEGUMINOSÆ.

Tragacanth. See *Astragalus vernus*, Olivier, LEGUMINOSÆ.

TRAGIA.

- 1167 *Tragia involucrata*, Müll. Arg., EUPHORBIACEÆ.

Vern.—*Barkanta*, HIND.; *Bichati*, BENG.; *Vrischi-kali*, SANS.; *Kanchuri*, TAMIL.; *Dulaghondi*, TEL.

A common, stinging weed found in dry places.
The root is used as alterative in venereal diseases. The fruit is made into a paste and applied to boils to hasten suppuration.

TRAPA.

- 1168 *Trapa bispinosa*, Roxb., ONAGRACEÆ.

Vern.—*Singhara*, HIND.; *Pániphal*, BENG.; *Sringataka*, SANS.; *Parike-gadda*, TEL.

Found throughout India and Ceylon.

The nuts are farinaceous, and used as food; considered by natives cool and sweet, useful in bilious affections and diarrhoea. The nuts are also used in the form of poultices. (Baden-Powell.)

TRIANTHEMA.

- 1169 *Trianthemæ decandra*, Linn., FICOIDÆ.

Vern.—*Gada buni*, BENG.; *Bhee khupra*, DEC.; *Vallay-sharunnay*, TAMIL.; *Tella ghalijeroo*, TEL.

An annual met with in Deccan Peninsula and Ceylon.

The root is aperient, and said to be useful in hepatitis and asthma. A decoction of the root-bark is given as an aperient. (Ainslie.)

- 1170 *T. monogyna*, Linn.

Syn.—*T. OBCORDATA*, Roxb.

Vern.—*Subuni*, BENG.; *Nasurjanghi*, DEC.; *Sharunnay*, TAMIL.; *Gheli jehroo*, TEL.

A perennial of the Coromandel Coast and Bengal.

The root, which is bitter and nauseous, is given in powder in combination with ginger as a cathartic; when taken fresh it is somewhat sweet. (Ainslie.)

- 1171 *T. pentandra*, Linn.

Vern.—*Bish kapra*, *narma*, SIND, PB.

Found in the Punjab, Sind and plains of North-West India.

The plant is used as an astringent in abdominal diseases, and is also stated to produce abortion. (Dr. Stewart.)

TRIBULUS.

- 1172 *Tribulus alatus*, Delile., ZYGOPHYLLEÆ.

Vern.—*Nin do-trikund*, *latak*, SIND.

Met with in Sind, Punjab at Multan.

The fruits are used for the same purposes as those of *T. terrestris*, Linn.

Tribulus terrestris, Linn.Syn.—*T. LANUGINOSUS, Linn.*

Vern.—*Gokhrú, HIND. ; Gokhuru, BENG. ; Gokshuri, ikshugandha, SANS. ; Bastituj, khasak, ARAB. ; Khard-khasak, PERS. ; Ghókrá, DEC. ; Nerunji, TAM. ; Pallérū-mullu, TEL. ; Nerinnil, MAL. ; Charatte, sulo-anen, BURM. ; Lahana gokroo, BOM.*

"The fruits are regarded as cooling, diuretic, tonic and aphrodisiac, and are used in painful micturition, calculus affections, urinary disorders and impotence." They form one of the ten ingredients which constitute the *Dasamula* of the Hindu physicians. (*Hindu Mat. Med.*) They are also considered astringent, and Bellew states that they are taken by women to ensure fecundity, and an infusion of the stems is taken for gonorrhœa. (*Dr. Stewart.*) In South India the fruit is highly valued as a diuretic. In many cases where this has been tried, the result was quite perceptible in the increase of the urinary secretion. There is another method of administration, in which the fruit and the root is boiled with rice to form a medicated water, which is taken in large quantities (*Pharm. Ind.*)

TRICHO-SANTHES.
II73

TRICHODESMA.**Trichodesma africanum, Br., BORAGINÆ.**Vern. *Paburpanee, SIND.*

Met with in Punjab and Sind.

Leaves are used as diuretic (*Murray*).

II74

T. indicum, Br.

Vern.—*Chhota-kulpha, HIND. ; Kowri-bootee, ratmandoo, PB. ; Gaosaban, SIND.*

II75

Found throughout India, but not in Bengal plains.

Held in repute in snake-bites; also considered diuretic; used as a blood purifier and a cooling medicine. A cold infusion of the leaves is considered depurative. In the Deccan, the plant is used as an emollient poultice. (*Pharm. Ind.*)

T. zeylanicum, Br.

Deccan Peninsula and Ceylon.

Leaves used as an emollient poultice.

II76

TRICHOSANTHES.**Trichosanthes anguina, Linn., CUCURBITACEÆ.**

Vern.—*Chákenda, HIND. ; Chichingd, BENG. ; Chichinda, SANS. ; Parula, pada-vala, BOM.*

II77

Cultivated in India.

The seeds are considered a cooling medicine.

T. cordata, Roxb.

A plant met with at the base of the Eastern Himalaya in Sikkim and Assam to Pegu; frequent in the Khásia Terai and Cachar.

The large tuberous roots are used as a valuable tonic and as a substitute for *Columba* (*Roxburgh*.)

II78

Economic Products of India.

Trichosanthes cucumerina, Linn.

Vern.—*Yangli-chichonda*, HIND.; *Ban-chichinga*, *ban-patal*, BENG.; *Kat-tup-pipudal*, TAM.; *Adavi-pota*, TEL.; *Kaiyappatolam*, MAL.; *Tebon-moyo*, BURM.

Found throughout India and Ceylon.

The seeds are reputed good in disorders of the stomach on the Malabar Coast. The unripe fruit is very bitter, but is eaten by the natives in their curries. The tender shoots and dried capsules are very bitter and aperient, and are reckoned among the laxative medicines of the Hindus. They are used in infusions. In decoction with sugar they are given to assist digestion. The seeds are antifebrile and antemintic. The juice of the leaves expressed is emetic, and that of the root, drank in the quantity of 2 oz. for a dose, is very purgative. The stalk in decoction is expectorant (*Drury*).

1180 T. dioica, Roxb.

Vern.—*Parvar*, *patal*, HIND.; *Patbl*, BENG.; *Patola*, SANS.; *Kombu-pudalai*, TAM.; *Kommu-pota*, TEL.; *Patolam*, MAL.

Throughout the plain of North India from the Punjab to Assam, and East Bengal.

The leaves, fresh juice of the fruits and the root are all used medicinally. The leaves are described as good, light, and agreeable, bitter tonic. The fresh juice of the unripe fruit is often used as a cooling and laxative adjunct to some alterative medicines. In bilious fever a decoction of *patola* leaves and coriander in equal parts, is given as a febrifuge and laxative. (*Hindu Materia Medica*.) An alcoholic extract of the unripe fruit is said to be a powerful and safe cathartic. According to Rai Kani Lal De Bahadur, "the bulbous part of the root is a hydragogue cathartic. The root of this plant acts like Elatiherium, for which it can be substituted." The old Hindu physicians placed much confidence in it in the treatment of leprosy. (*Pharm. Ind.*)

1181 T. nervifolia, Linn.

Medicinal properties similar to *T. dioica*, Roxb.

1182 T. palmata, Roxb.

Vern.—*Lal-indrayan*, HIND.; *Makdi*, BENG.; *Mahakdla*, SANS.; *Anbaghōl*, ARAB.; *Hansale-surkh*, PERS.; *Lal-indravān*, DEC.; *Korattai*, TAM.; *Arvagēda-pandū*, TEL.; *Titta-kondala*, CINGH.; *Kaundoī*, BOM.

From the Himalaya to Ceylon and Singapore; very common i. all moist thickets, ascending to 5,000 feet.

The fruit of this species, pounded and well mixed with warm cocoa-nut oil, forms a valuable application to sores under the ears and nostrils (*Ainslie*). The root is used as a cattle medicine in inflammation of lungs. Roxburgh informs that the fruit is poisonous. In Bomba the fruit is smoked as a remedy for asthma. (*Dymock*.)

TRIGONELLA.

1183 Trigonella Foenum-graecum, Linn., LEGUMINOSE.

FENUGREEK.

Vern.—*Methi*, BENG., HIND., SANS.; *Hulbah*, ARAB.; *Shamlit*, PERS.; *Vendayam*, TAM.; *Mentulu*, TEL.; *Ventayam*, MAL.; *Monthyā*, KAN.; *Mithi*, MAHR., GUZ.; *Po-nān-ta-si*, BURM.

Cultivated in many parts of India, wild in Kashmir and the Punjab.

TRITICUM

"Fenugreek seeds are considered carminative, tonic, and aphrodisiac. Several confections made with this article are recommended for use in dyspepsia with loss of appetite, in the diarrhoea of puerperal women and in rheumatism." (*Hindu Mat. Med.*) An infusion of the seeds is given by the natives to small-pox patients as a cooling drink. "Mahomedan writers describe the plant and seeds as hot and dry, suppurative, aperient, diuretic, emmenagogue, useful in dropsy, chronic cough, and enlargements of the spleen and liver. A poultice of the leaves is said to be of use in external and internal swellings, and burns, and to prevent the hair falling off. The flour of the seeds is used as a poultice, and is applied to the skin in cosmetic." (*Dymock*) "The use of Fenugreek as a medicinal agent is now obsolete in Europe and United States. Formerly the seeds were employed in the preparation of emollient cataplasms, fomentations and enemata, but were never given internally. The powdered seeds are still used in veterinary practice." (*Bentley and Trimen*.)

TRITIGUM.

284

Triticum sativum, Lam., GRAMINEÆ.

COMMON WHEAT.

Syn.—*T. ASTIVUM*, Linn.; *T. HYBERNUM*, Linn.; *T. VULGARE*, Vill.; *T. TURGIDUM*, Linn.; *T. COMPOSITUM*, Linn.; *T. DURUM*, Desf.

Vern.—*Genhu*, HIND.; *Gam*, BENG.; *Godhuma*, SANS.; *Hintah*, ARAB.; *Gandum*, PERS.; *Godumai*, TAM.; *Gidumuli*, TEL.; *Kötangpan*, MAL.; *Gödhi*, KAN.; *Gahung*, MAR.; *Giyon saba*, BURM.

An annual herb, cultivated chiefly in North-West India, Central Provinces and Bombay.

"Wheaten flour is but little used in medicine, but it may be sprinkled on the skin in erysipelatous inflammation, and various itching or burning eruptions, as nettle-rash, and also in burns and scalds. When employed for the latter, it cools the part, excludes the air, and absorbs the discharge, forming a crust which effectually protects the subjacent part. When the crust has become detached by the accumulation of purulent matter beneath, a poultice may be applied, and after its removal, the exposed surface may be again sprinkled over with flour. A mixture of flour and water is also used as an antidote in poisoning by the salts of mercury, copper, zinc, silver, and tin, and by iodine. Wheaten flour is also occasionally employed in pharmacy for enveloping pills."

"Bran is sometimes used in the form of a decoction or infusion, as an emollient bath; and also internally as a demulcent in catarrhal affections and bowel complaints. Bran poultices are also useful in abdominal inflammation, spasms, &c. Bran taken in substance is laxative, hence bran bread, which is made from unsifted flour, may be used with advantage in certain dyspeptic cases. Bran bread, made from coarse wheat bran, has also been employed with success in the treatment of diabetes; its value in this disease being due to the almost entire absence of starch." (*Bentley and Trimen*.)

Mucilage of starch is demulcent and a good vehicle for enemas in dysentery and other bowel affections. Glycerine of starch forms a demulcent application in skin diseases, excoriations and other local affections. (*Pharm. Ind.*)

Economic Products of India.

**TYLO-
PHORA.**

TRIUMFETTA.

- 1185 *Triumfetta rotundifolia*, Lam., TILIACEÆ.
 Vern.—

Found in Western Peninsula and Central India, from Bandelkhand to Mysore and Pegu.

"The mucilaginous and astringent properties of the leaves and fruits of certain *Triumfettas* called *Carapixo de calcada* in Brazil, which grow everywhere in that country, especially on the roadside and in the vicinity of dwellings, render them serviceable in injections for inveterate gonorrhœa." (Murray.)

Turmeric. See *Curcuma longa*, Roxb., SCITAMINEÆ.

Turpentine. See *Pinus*.

TUSSILAGO.

- 1186 *Tussilago Farfara*, Linn., COMPOSITE.

Vern.—*Watpan*, PB.

Found in western Himalaya, from Kashmir to Kumaun, altitude 6,000 to 11,000 feet.

The leaves are sometimes applied to wounds (Dr. Stewart).

TYLOPHORA.

- 1187 *Tylophora asthmatica*, White & Arn., ASCLEPIADEÆ.

Vern.—*Gangli-pikwan*, *antamul*, HIND.; *Nach-churuppán*, TAM.; *Verri-pálá*, TEL.; *Valli-pálá*, MAL.; *Bin-nuga*, CINGH.

Met with in North and East Bengal, Assam, Cachar, Chittagong and Burma to Malacca, Deccan Peninsula. Common in the hotter districts of Ceylon.

The dried leaves are emetic, diaphoretic and expectorant, useful in over-loaded states of the stomach and other cases requiring the use of emetics. It has also been found useful in dysentery, catarrh, and other affections in which Ipecacuanha has been employed. (*Pharm. Ind.*) Roxburgh, in his *Flora indica*, gives a long account of the use of this plant as a substitute for Ipecacuanha:—

"On the coast of Coromandel, the roots of this plant have often been used as a substitute for Ipecacuanha. I have often prescribed it myself, and always found it answer as well as I could expect Ipecacuanha to do. I have also often had very favorable reports of its effects from others. It was a very useful medicine with our Europeans who were unfortunately prisoners with Hydar Ally, during the war of 1780, 1781, 1782, and 1783. In a pretty large dose, it answered as an emetic; in smaller doses, often repeated, as a cathartic, and in both ways very effectually."

"I had made and noted down many observations of its uses, when in large practice in the General Hospital at Madras in 1776, 1777, and 1778, but lost them, with all my other papers, by the storm and inundation at and near Coringa in May 1787. I cannot therefore be so full on the virtues of this valuable, though much neglected, root, as I could wish. I have no doubt but it would answer every purpose of Ipecacuanha."

"The natives also employ it as an emetic; the bark, of about three or four inches, of the fresh root, they rub upon a stone, and mix with a little water for a dose; it generally purges at the same time."

ULMUS.*Note by Dr. P. Russell.*

"Dr. Russell was informed by the Physician General of Madras (Dr. J. Anderson) that he had many years before known it used, both by the European and Native Troops, with great success in the dysentery which happened at that time to be epidemic in the camp. The store of Ipecacuanha had, it seems, been wholly expended, and Dr. Anderson finding the practice of the black doctors much more successful than his own, acknowledged, with his usual candour, that he was not ashamed to take instruction from them, which he pursued with good success; and collecting a quantity of the plant which they pointed out to him, he sent a large package of the roots to Madras. It is certainly an article of the Hindu *Materia Medica* highly deserving attention."

Tylophora fasciculata, Ham.

1188

Vern.—*Bhui-doree, Bom.*

Found in South Nepal, South Konkan and Bababoodan hills.

Used as a poison for rats and other vermin. (*Dymock.*)**TYPHA.****Typha angustifolia, Linn., TYPHACEÆ.**

1189

Syn.—*TYPHA ELEPHANTINA, Roxb.*Vern.—*Pater, Hind.; Hoglá, Beng.; Eraká, Sans.; Rámbarán, Mahr., Sind.*

Found in Bengal, Peninsula and Concans.

The down of the ripe fruit is used as an application to wounds and ulcers, which acts in the same way as the medicated cotton wool.

TYPHONIUM.**Typhonium orixense, Schott., ARCOIDEÆ.**

1190

Vern.—*Ghit-kochu, Beng.; Karunaik-kishangu, Tam.; Kanda-gadda, Tel.; Chéna, Mal.*

Met with in Cochin China, Indian Peninsula, Ceylon.

The roots are exceedingly acrid, and used by the natives in poultices. (*Roxburgh.*)**ULMUS.****Ulmus campestris, Linn., URTICACEÆ.**

1191

COMMON ELM, Eng.; ORME, Fr.; FELDRUSTER ULME, Ger.

Vern.—*Yumbok, LADAK; Bran, brahmi, kai, PB.*

A large tree frequently reaching a height of 100 feet indigenous in Central and South Europe, naturalised, not indigenous, in England, commonly planted in parks and avenues. North Asia, Turkistan, North China, Japan, Syria, Armenia, Caucasus, and probably Afghanistan.

Brandis refers to this plant the small-leaved elm of the North Western Himalaya. Not common, and generally near villages, in North Western Himalaya, on the upper Jhelam, Chenab, Bias, Sutlej and Indus, and in the Nubra valley ascending to 10,500 feet.

"Elm bark is prescribed in decoction as a weak mucilaginous astringent, but is almost obsolete." (*Pharmacographia.*) It is used as an alterative tonic and demulcent in chronic skin diseases, especially in lepra, psoriasis, and herpes. It has also been employed as a diaphoretic and diuretic.

Economic Products of India.

URGINEA.

- 1192 *Ulmus integrifolia*, Roxb.

Vern.—*Papri, khamta, kénj, karanj, HIND.; Papri, khulen, arjan, PB.; Aya, TAN., Naml, TEL.; Ras bija, KAN.; Myoukseit, BURM.*

A large, deciduous tree of the sub-Himalayan tract from the Beas eastward, Central and South India, Burma.

The bruised leaves are applied to boils.

UNCARIA.

- 1193 *Uncaria Gambier*, Hunter, RUBIACEÆ.

THE GAMBIER, PALE CATRCHU, OR TERRA JAPONICA.

Vern.—*Ankudu-kurra, TEL.; Gambir, MAL.*

An extensive, scandent bush, native of Ceylon and the Malay Archipelago, distributed to Java and Sumatra.

The extract is obtained by boiling the leaves and young shoots.

"Gambier, under the name of *Catechu*, is used medicinally as an astringent, but the quantity thus consumed is as nothing in comparison with that employed for tanning and dyeing." (*Pharmacographia*) Catechu lozenges are useful in hoarseness, relaxation of the throat, uvula and tonsils, in sponginess and ulceration of the gums, ptyalism, &c. They may be employed in diarrhoea, pyrosis, and other cases in which astringents are indicated. (*Pharm. Ind.*)

- 1194 Urine.

URARIA.

- 1195 *Uraria lagopoides*, DC., LEGUMINOSÆ.

Syn.—*Doodia LAGOPODIOIDES*.

Vern.—*Piwan, HIND.; Chakulia, BENG.; Prisniparni, SANS.*

Met with in the tropical zone, from Nepal and Bengal to Ava.

"This plant is an ingredient of the *Dasamula*, and is thus much used in native medicine. It is considered alterative, tonic and anticatarrhal, but is seldom used alone." (*Hindu Mat. Med.*)

- 1196 *U. picta*, Desv.

Vern.—*Deterdáne, PB.; Prisniparni, MAHR.*

From Himalayas to Ceylon, ascending to 6,000 feet in the North-West.

In South India the plant is supposed to be an antidote to the poison of the *Akhoorsa* snake (*Echis carinata*). Fruit is applied to the sore mouths of children. (*Dymock; Stewart.*)

URGINEA.

- 1197 *Urginea indica*, Kunth., LILIACEÆ.

INDIAN SQUILL.

Syn.—*SCILLA INDICA*, Roxb.

Vern.—*Kanda, jangli-piyás, HIND.; Ban-piyás, BENG.; Vana-palendam, SANS.; Isqilo-hindi, ARAB.; Piyás-moshe-hindi, PERS.; Kandra, DEC.; Nari-vengáyam, TAM.; Nakha-vulli-gadda, TEL.; Gangali piyájha, réna kändá, BOM.; Katulli, MAL.; Vallaná, CINGH.; To-kessín, BURM.*

and inhabiting the sandy shores of the peninsula of India.

VALERIA-
NA.

Bulb is commonly employed as a diuretic and expectorant, and according to Mr. Moodeen Shariff, forms a poor substitute for the official squill (*Urginea Scilla*, *Steinheil*). He says that it possesses little or no action when it is old and large. To ensure its good action, it should either be very young and not larger than a lime in size, or its innermost coats alone should be selected." It is chiefly used by farriers for horses in cases of strangury and fever. The burnt bulb is externally applied to the soles of the feet when suffering from any burning sensation (Ainslie.)

Urginea Scilla, Steinheil.

1198

SQUILL.

Syn.—*SCILLA MARITIMA*, *Linn.*; *UNGINEA MARITIMA*, *Baker*.

A perennial herb met with near the Mediterranean shores.

The sliced and dried bulbs are official and imported into India. They are expectorant and diuretic in small doses, and emetic and cathartic in larger ones. In over-doses they act as an irritant poison. They are useful in the asthenic forms of dropsy, in chronic bronchitis, asthma, and catarrhal affections. (*Pharm. Ind.*) It should not be administered in acute inflammatory affections on account of its irritant qualities. As an emetic it has been prescribed in hooping cough and croup, usually combined with ipecacuanha, but as an emetic it is very uncertain in its action. (Bentley & Trimen.)

Utangan.

1199

The *Utangan* or *Unjureh* of Mahomedan writers is the *Urtica prima* of the Latins (*Urtica pilulifera*, *Linn.*); but the drug which is found in the Bombay bazars under the name of *Utingan* is the seed of *Acanthodium hirtum*, *Stocks*.

Uva Ursi. See *Arctostaphylos Uva Ursi*, *Spreng.*, ERICACEÆ.

UVARIA.

Uvaria Narum, *Wall.*, ANONACEÆ.

1200

Vern.—*Narum-panel*, MAL.

A large, woody climber met with in the forests of the Western Peninsula, central province, ascending to 4,000 feet.

A sweet-scented, greenish oil is obtained from the roots by distillation in Malabar, which, as well as the root itself, is used in various diseases. The root is fragrant and aromatic, and the bruised leaves smell like cinnamon. (Rheede.)

Vachellia Farnesiana, *W. & A.* See *Acacia Farnesiana*, *Willd.*

LEGUMINOSÆ.

VALERIANA.

Valeriana Hardwickii, *Wall.*, VALERIANÆ.

1201

Vern.—*Tagger, shumeo, asarán*, HIND.; *Nahani, char, Pa.*; *Tagoragan-thodá*, BOM.

A plant of the temperate Himalaya, from Kashmir to Bhutan, altitude 4,000 to 12,000 feet, Khásia mountains, altitude 4,000 to 6,000 feet.

VANDA.

The strong-scented roots are used for medicinal purposes in Nepal and North India. According to Dr. Adams the *Syrian Nard* of the ancients was probably the root of this plant. It deserves attention as an antispasmodic. (*Pharm. Ind.*) When dry the roots are burnt as perfume, and are also used as a flavoring agent and to keep off insects from clothes. (Atkinson.)

1202 *Valeriana officinalis*, Linn.

COMMON VALERIAN.

Vern.—*Kálavála*, MAHR.

Found in North Kashmir, Sonamurg, altitude 8,000 to 9,000 feet. The root is officinal, being stimulant and antispasmodic. It is useful as an antispasmodic in hysteria, epilepsy, chorea and allied affections. As a stimulant it is used in the advanced stages of fevers, low asthenic inflammations, &c. (*Pharm. Ind.*) As an antispasmodic it is much inferior to asafœtida. In excessive doses it causes head-ache, mental excitement indicating a deranged state of the nervous system. In intermittents it has been useful when combined with cinchona bark or other tonics. Baths of Valerian have been found very useful in acute rheumatism. The volatile oil of Valerian is also a good form of administration. (Bentley & Trimen.)

1203 *V. Wallichii*, DC.

Vern.—*Mush kwdli*, bala, PB.

Grows in temperate Himalaya from Kashmir to Bhutan, altitude 10,000 feet, Khasia Mountains, altitude 4,000 to 6,000 feet.

The roots are exported to the plains and are used medicinally. (Dr. Stewart.)

VALLARIS.

1204 *Vallaris Heynei*, Spreng., APOCYNACE.

Syn.—V. DICHOTOMA, Wall.

Vern.—*Híparmáli*, BENG.; *Bhadravalli*, SANS.; *Dudhi*, KUMAUN.

A large, twining shrub of the sub-Himalayan tract, from the Ganges eastward, Central and South India, and Burma.

The milky juice is applied to wounds and generally to old sores.

VANDA.

1205 *Vanda Roxburghii*, R.Br., ORCHIDÆ.

Vern.—*Rásnd*, HIND., BENG.; *Rásnd, gandhanakuli*, SANS.

"Rásná root is said to be fragrant, bitter and useful in rheumatism and allied disorders, in which it is prescribed in a variety of forms. It also enters into composition of several medicated oils for external application in rheumatism and diseases of the nervous system." (*Hindu Mat. Med.*) See also *Acampe papillosa*.

VATERIA.

Vateria indica, Linn., DIPTEROCARPEÆ.

1206

THE WHITE DAMMAR of South India, or PINEY VARNISH, OR
INDIAN COPAL.Syn.—*V. MALABARICA*, Blume.Vern.—*Kahruba* or *sandras*, HIND.; *Pineymaram*, TAM.; *Dipta maram*
KAN.; *Dupadu*, TEL.; *Hal*, CINGH.; *Rai*, BOM. (See also *Shorea*
robusta.)Western moist zone; Western Ghâts, from Kanara to Travancore,
ascending to 4,000 feet.The principal source of the white Dammar met with in the bazars of
South India. From the fruit, bruised and subjected to boiling, is obtained
a solid, fatty oil, named *Piney-tallow* or *Vegetable Butter* of Kanara,
which is highly valued as a local application in chronic rheumatism and
some other painful affections. It may also be employed as a basis of oint-
ments. (*Pharm. Ind.*)**Vatica Tumbuggaia**, W. & A., DIPTEROCARPEÆ. See *Shorea Tum*

1207

buggala, Roxb.

VERATRUM.

Veratrum viride, Aiton., LILIACEÆ.

GREEN or AMERICAN HELLEBORE.

Found in the east coast of North America, from Canada to Carolina.

The rhizome is a powerful sedative, especially of the circulatory system
in overdoses, it acts as an emetic and a powerful depressant. It is used
in some acute inflammations, viz., pneumonia, in acute and chronic rheum-
atism, gout, neuralgia, asthma, and in cardiac diseases, attended with in-
creased action. It has also been used in typhoid fever, but with doubtful
results. (*Pharm. Ind.*) In the *Pharmacographia*, this substance has been
much recommended as a cardiac, and arterial and nervous sedative. It is
said to lower the pulse, the respiration and heat of the body, not to be
narcotic, and rarely to occasion purging.

VERBASCUM.

Verbascum Thapsus, Linn., SCROPHULARINÆ.

1208

Vern.—*Vâl*, *phâl*, *bantamâkâ*, PB.A plant of the temperate Himalaya, altitude 6,000 to 11,000 feet, from
Kashmir to Bhutan, and of Western Tibet.In Bissahir, the root is given as a febrifuge. The name *reward chini*
of this plant seems to indicate that it is sometimes used to adulterate
rhubarb. (*Dr. Stewart.*) Digitalis leaves are occasionally found mixed
with those of *Verbascum Thapsus* and of other plants. (*Garrod.*)

VERBENA.

Verbena officinalis, Linn., VERBENACEÆ.

1209

Vern.—*Pámakh*, *kárâta*, PB.Common in moist places all over the Punjab plains, and at places to
7,000 feet in the hills.

Economic Products of India.

VIGNA.

The fresh leaves are used as febrifuge and tonic, and the plant is officinal at Lahore, being depurative and febrifuge.

1210 Vermicelli.

VERNONIA.

1211 *Vernonia anthelmintica*, Willd., COMPOSITE.

Syn.—*SERRATULA ANTHELMINTICA*, Roxb.; *CÖYZA ANTHELMINTICA*, Linn.

Vern.—*Buckche, kaliaserie, HIND.*; *Somraj, BENG.*; *Atarilal, ARAB.*, PERS.; *Somraji, SANS.*; *Neernoochie, caatsiragum, TAM.*; *Nöla-valie, adavie-sula-kuru, TEL.*; *Kali-seerie, DEC.*; *Sanni-nayan, CINGH.*; *Kalee-jores, BOM.*

A plant met with in parts of India, especially on the Himalaya.

The seeds are of great repute in Sanskrit Materia Medica as a medicine for white leprosy and other skin diseases. It is mentioned also as an anthelmintic." (*Hindu Mat. Med.*) The author of *Makhsan-ul-Adwiya* describes *Kali-seerie*, and says that it is internally used for removing phlegm and intestinal worms, and in the form of poultice or plaster it is used to disperse cold tumours. (*Dymock.*) In Travancore, the bruised seeds are largely employed with lime-juice as a means of destroying pediculi. Dr. Gibson reports that the seeds are a valuable tonic and stomachic. Diuretic properties are also ascribed to them. (*Pharm. Ind.*) They are also given in anasarca and used in plasters for abscesses.

1212 *V. cinerea*, Less.

Vern.—*Sahadevi, PB.*; *Seera-shengalaneer, TAM.*

Found throughout India, ascending to 8,000 feet in the Himalaya, Khasia and Peninsular Mountains.

Used in medicine by the Hindus, in decoction, to promote perspiration in febrile affections. (*Ainslie.*)

VERONICA.

1213 *Veronica Beccabunga*, Linn., SCROPHULARINE.

Vern.—?

Frequent in the Himalaya at from 5,000 to 9,000 feet.

Honigberger states that the plant is officinal in Kashmir. (*Dr. Stewart.*)

VIGNA.

1214 *Vigna Catiang*, Endl., LEGUMINOSE.

Syn.—*DOLICHOS SINENSIS*, Linn.

Vern.—*Lobiya, raish, HIND.*; *Barbati, BENG.*; *Rajamdscha, SANS.*; *Chowla, MAHR.*

Native, and universally cultivated in the tropical zone.

Considered hot and dry, diuretic and difficult of digestion. Used to strengthen the stomach. (*Baden-Powell.*)

Villarsia nymphaeoides, Vent. See *Limnanthemum nymphaeoides*, GENTIANACE.

VINÇA.

Vinca rosea, Linn., APOCYNACEÆ.

1215

Vern.—*Rattanjot* (*Stewart*) ; *Sedaphool*, MAHR.A West Indian plant, much cultivated about pagodas.
This is mentioned as *Rattanjat*. (*Dr. Stewart*.)**Vinegar.** See Acetum.

VIOLA.

Viola cinerea, Boiss., VIOLACEÆ.

1216

Vern.—*Banafsha*, SIND., PB.

Found in the dry, hilly region of the Punjab and Sind.

This is one of the plants which produce the *Banafsha* of the bazars.**V. odorata**, Linn.

1217

Vern.—*Banafshah*, HIND., PERS., BOM.; *Bonasd*, BENG.; *Banafshaj*, ARAB.; *Vayilettu*, TAM.; *Bâga bandsâ*, MAHR.; *Banaphsâ*, GUZ.

Met with in Kashmir, altitude 5,000 to 6,000 feet.

The plant is generally considered cold and moist, and is especially valued as a purgative in bilious affections. (*Dymock*) It is sold in the bazars in the dry state, and prescribed by the hakims as a diaphoretic in the treatment of fever. It nauseates slightly, owing to the presence of *violina*, a principle closely resembling emetine, on which depend the properties of Ipecacuanha. (*O'Shaughnessy*.)**V. serpens**, Wall.

1218

Vern.—*Thungtu*, *banafsha*, HIND.

Met with in the moist weeds throughout the temperate Himalaya, Khâisia hills, Pulney and Nilgiri mountains, and Ceylon, altitude 5,000 to 7,000 feet.

The flowers are considered diaphoretic and laxative; the seeds are diuretic and the root emetic. (*Atkinson*.)**Virginian Snake Root.** See *Aristolochia serpentaria*, Linn., ARISTO-LOCHIACEÆ.

VIScum.

Viscum album, Linn., LORANTHACEÆ.

1219

MISTLETOE.

Vern.—*Bambal*, *wahal*, *ahalû*, PB.; *Dibk*, ARAB.

This parasite occurs in many places at from 3,500 to 9,000 feet, in the Punjab Himalaya up to the Indus, and in the Sulaiman Range.

Mr. Honigberger states that it is given in enlargement of the spleen, in cases of wound, tumour, diseases of the ear, &c. (*Dr. Stewart*.)The dried berries imported into Bombay under the name of *Kishmish-i-kâwulijân* (vulg., *Kishmish-kawli*) are probably obtained from this plant.**V. monoicum**, Roxb.

1220

Vern.—*Kuchle-ka-malang*, HIND.; *Kuchle-ki-sonhan*, DEC.; *Pullurivi*, TAM., TEL.

The leaves of a viscum, doubtfully on Nux Vomica trees in the neighbourh

Economic Products of India:

VITEX.

to possess poisonous properties, similar to those of the trees on which it grows. The subject was investigated by Sir O'Shaughnessy, who detected in the powdered leaves the presence of strychnine and brucine.

VITEX

1221 *Vitex leucoxylon*, Linn., VERBENACEÆ.

Vern.—*Goda, horina, ashwal*, BENG.; *Luki, neva-edi*, TEL.; *Sengoni, karril*, KAN.; *Tobra*, MAGH.; *Sherasa* MAR.; *Htouksha*, BURM.

A very large, deciduous tree of Chittagong, Burma, Andaman Islands and South India.

The bark and root are used as astringents (*Major Ford*).

1222 *V. Negundo*, Linn.

Vern.—*Sanhádi, nirgandi*, HIND.; *Nishinda*, BENG.; *Nirgundi*, SANS.; *Aslag*, ARAB.; *Sisban*, PERS.; *Shánbádi*, DEC.; *Noch-chi*, TAM.; *Tella-vdwilli*, TEL.; *Kiyon-bhán-bin*, BURM.; *Katri*, BOM.; *Lingoor*, MAHR.

Widely distributed throughout India.

"Sanskrit writers mention two varieties of *Nirgundi*—that with pale blue flowers is called *Sindhuvára* (*Vitex trifolia*), and that with blue flowers is called *Nirgundi*. The properties of both are identical, but the latter is generally used in medicine. The root of *V. Negundo* is considered tonic, febrifuge and expectorant. The leaves are aromatic, tonic and vermicifuge. A decoction of *Nirgundi* leaves is given with the addition of long pepper in catarrhal fever with heaviness of head and dullness of hearing. A pillow stuffed with the leaves of *Nirgundi* is placed under the head for relief of headache. The juice of the leaves is said to have the property of removing foetid discharges and worms from ulcers. An oil prepared with the juice of the leaves is applied to sinuses and scrofulous sores." (*Hindu Mat. Med.*) Dr. Fleming remarks that the leaves are diuretic, and are useful in dispersing swellings of joints from acute rheumatism and of the testes from suppressed gonorrhœa. The people of Mysore are in the habit of treating febrile, catarrhal and rheumatic affections by means of a vapour bath prepared with this plant. Roxburgh also mentions the use of the decoction of the leaves as bath in the puerperal state of women in India, and Ainslie states that the Mahomedans smoke the dried leaves for the relief of headache and catarrh. The dried fruit acts as a vermicifuge. (*Pharm. Ind.*)

1223 *V. sp.*

Vern.—*Hab-ul-fakad*, ARAB.; *Tukm-i-panjangusht*, PERS.; *Shambaloo kabij*, HIND.; *Renu kabij*, BOM.

A small, dull gray, ovoid fruit, the size of a duck shot, half enclosed in the calyx, to which a portion of the peduncle remains attached.

It is imported from Persia, and is considered to act as a resolvent and deobstruent in enlargements of the spleen. Probably the fruit of *V. agnus castus*.

1224 *V. trifolia*, Linn.

Vern.—*Nishinda*, BENG.; *Sambalu*, HIND.; *Sindhuvára*, SANS.; *Aslaque-dbi*, ARAB.; *Pan-angushte-dbi*, PERS.; *Nirnochi*, TAM.; *Vavilli*, TEL.; *Lingoor*, MAHR.; *Kyoung-ban*, BURM.

A small tree or shrub of Bengal, South India and Burma.

The plant is highly extolled by Bontius under its Malayan name *agnondi*; he speaks of it as anodyne, diuretic, and emmenagogue, and prescribes to the use of fomentations and baths prepared with this

"noble herb" as he terms it, in the treatment of *Beri-beri*, and in the allied and obscure affection, burning of the feet. (*Pharm. of Ind.*)

VITIS.

Vitis quadrangularis, Wall., AMPHEDIKE.

Vern.—*Hajjora*, BENG.; *Perundei codie*, TAM.; *Nullo-rootige*, TEL.
Tsgangolam-parenda, MAL.

Found throughout the hotter parts of India, from the foot of the Western Himalayas in Kumaun to Ceylon and Malacca.

The leaves and young shoots when dried are powdered and given in bowel complaints. Fotskai states that the Arabs when suffering from affections of the spine make beds of the stems. (*Ainslie.*)

V. setosa, Wall.

Vern.—*Barabutsali*, TEL.

Found in the Western Peninsula, from the Circars and Mysore southward.

Every part of the plant is exceedingly acrid. The leaves, toasted and oiled, are applied to indolent tumours, to bring them to suppuration. (*Roxb.*)

V. vinifera, Linn.

Vern.—*Angur, dák, dakkh*, HIND.; *Angur-phal, kismis, manakhd*, BENG.; *Drákhshá, mridvákh*, SANS.; *Ainab*, ARAB.; *Angár*, PERS.; *Kodi-mun-diríppasham*, TAM.; *Draksha-pondú*, TEL.; *Draksha*, MAHR.; *Sabi-si*, BURM.

Perhaps wild in the North-West Himalaya, cultivated extensively in North-West India, and rarely in the Peninsula and Ceylon.

"The dried fruits, called raisins, are used in medicine. They are described as demulcent, laxative, sweet, cooling, agreeable and useful in thirst, heat of body, cough, hoarseness and consumption." (*Hindu Mat. Med.*) They are an ingredient of compound tincture of cardamoms and of tincture of senna, and are chiefly used for the saccharine matter they impart. (*Pharmacographia.*)

VIVERRA.

Viverra zibetha, Linn., RODENTIA.

THE ZIBETH, OR ZIBETH CIVET CAT.

"In Southern India, the unctuous odorous secretion of this animal is much employed by the native practitioners, under the name of *kustári*. In Travancore there was, and probably there is still, an establishment, kept up at the expense of the Government, in which these animals were kept and reared for the sake of their secretion, which is used for perfumery as well as for medicinal purposes. Valuable stimulant and aphrodisiac virtues are ascribed to it, but probably it possesses no special powers in these respects. (*Pharm. Ind.*)

Wahlenbergia Roylei, DC., CAMpanulACEÆ. See Codonopsis Ovata, Benth.

Wax. See Cera.

Economic Products of India.

WOOD-APPLE TREE.

WEDELIA.

1229 *Wedelia calendulacea*, Less., COMPOSITÆ.

Syn.—*VERBESINA CALENDULACEA*, Rosb.

Vern.—*Bangra*, *kesaraja*, BENG.; *Pita-bhringi*, *bhringardja*, SANS.; *Bhānṛg*, HIND.; *Pivala bhangra*, BOM.; *Pivalamaka*, MAHR.

Met with in most places in Bengal, Assam, Silhet, the Eastern and Western Peninsulas and Ceylon. Has a slight camphoraceous smell.

The leaves of this plant are said by Dr. U. C. Dutt, in his *Materia Medica*, p. 181, to be used in dyeing grey hair, and in promoting the growth of hair. They are considered tonic, alterative and useful in cough, cephalalgia, skin diseases and alopecia. The juice of the leaves is much used as a snuff in cephalgia. The seeds, flowers, as well as the leaves, are used in decoction as deobstruent.

Whale, sperm. See *Physeter macrocephalus*, Linn., MAMMALIA.

Wheat, common. See *Triticum*.

WITHANIA.

1230 *Withania coagulans*, Dunal., SOLANACEÆ.

Syn.—*PUNNERIA COAGULANS*, Stocks.

Vern.—*Punir-ke-bij*, HIND.; *Habbul-kāknaya-Hindi*, ARAB.; *Tukhme, kāknaya-Hindi*, PERS.; *Ashvagandha*, BENG.; *Amukhurā-vrai*, TAM.; *Pannarū-gadda-vittulu*, TEL.; *Kakanūja*, *kāknaj*, BOM.

Frequent in Punjab and Sind.

The dried fruits are sold in the bazars under the name *Punir ja-fota*. They are used in dyspepsia and flatulent colic and other intestinal affections. In the form of an infusion they are employed along with leaves and twigs of *Rhazya stricta*, DC. (*Pharm. Ind.*) The dried fruit is also used to coagulate milk in the process of cheese manufacture. In Dr. Dymock's *Materia Medica* the fruit is said to be alterative and diuretic and useful in chronic liver diseases.

1231 W. somnifera, Dunal.

Syn.—*PHYSALIS SOMNIFERA*, Link.

Vern.—*Asgand*, HIND.; *Ashvagandha*, BENG., SANS.; *Amkoolang*, TAM.

Found throughout drier, sub-tropical India; frequent in the West and Hindustan, rare in Bengal.

The root is regarded as tonic, alterative, and aphrodisiac, and is used in consumption, emaciation of children, debility from old age, rheumatism, &c. It has also narcotic and diuretic properties. The root sold in the bazars of South India resembles Gentian root in external appearance. The ground root and bruised leaves are employed as a local application to carbuncles, ulcers, and painful swellings. (*Hindu Mat. Med.*; *Pharm. Ind.*) The root is also said to have deobstruent properties. The leaves are very bitter, and are given in infusion in fevers. The fruit is diuretic. The Telenga physicians suppose the roots to be alexipharmac. Dr. Dymock, in his *Materia Medica*, says that the bazaar root, although sold under the same names as the root of this plant, bears no resemblance to it. The source of the bazaar root remains yet undiscovered. To distinguish one from the other, he describes them separately, noting clearly all the points of differences that exist between them.

Cod-apple Tree. See *Feronia Elephantum*, Corr., RUTACEÆ.

WOODFORDIA.**Woodfordia floribunda**, *Salisb.*, LYTHRACEÆ.

1232

Syn.—*GRISLEA TOMENTOSA*, *Roxb.*Vern.—*Dawi*, *dhaula*, *dhaura*, *santho*, HIND.; *Dhaiphol*, BENG.; *Dhatak*, SANS.; *Dhowti*, OUDH; *Dahiri*, NEPAL; *Jatiko*, URYA; *Jargi*, TEL.; *Phulsatti*, MAR.; *Dhattee*, *dastree*, BOM.

Common throughout India, ascending to 5,000 feet in the Himalayas.

The dried flowers are regarded as stimulant and astringent, and are much used in bowel complaints and haemorrhages. Two drachms of the dried flowers are given with curdled milk in dysentery, and with honey in menorrhagia. The powdered flowers are sprinkled over ulcers for diminishing their discharge and promoting granulation. (*Hindu Mat. Med.*)**Wormseed.** See *Artemisia maritima*, *Linn.*, COMPOSITE.**WRIGHTIA.****Wrightia antidysenterica**, *Coch.*, APOCYNACEÆ. See *Holarrhena antidysenterica*, *Wall.*

1233

W. tinctoria, *Br.*Vern.—*Indarjou*, HIND., PERS.; *Dudhi*, BANDA; *Lasánul-aásáfir*, ARAB.; *Pálá*, TAM.; *Tedlapál*, TEL.; *Kala kudu*, MAR.; *Kálakuddá*, BOM.

Rajputana, Central and South India.

"There are two kinds of *Indar-jou* in the bazar, sweet and bitter. According to some native works and many native practitioners and drug-gists, they are the produce of one and the same plant, viz., *W. tinctoria*; but this is contrary to the fact. *W. tinctoria* is found in several gardens of Madras, and it always produces only one kind of seeds, which are the sweet *Indar-jou*. The bitter *Indar-jou* is the produce of *Holarrhena antidysenterica* and *H. pubescens*." (*Moodeen Shariff.*) For medicinal properties see *Holarrhena*.**W. tomentosa**, *Roxm.* & *Schult.*

1234

Vern.—*Keor*, *kilawa*, PB.; *Dudhi*, *dharauli*, *daira*, HIND.; *Karingi*, NEPAL; *emnyok*, LEPCHA; *Pal kurwan*, URYA; *Tella pal*, *koilmukri*, TEL.; *kuri*, ASS.; *Lettouk-thein*, BURM.

A small, deciduous tree of the sub-Himalayas from the Bias eastward to Oudh, Bengal, Burma, Central and South India.

The bark of the stem and roots are given as an antidote to snake-bite. Mr. Manson says the milky juice is used to stop bleeding by the Nepalese. (*Gamble.*)**XANTHIUM.****Xanthium strumarium**, *Linn.*, COMPOSITE.

1235

Syn.—*X. INDICUM*, *Kon.*, in *Roxb. Fl. Ind.* Ed. C. B. C. 660; *X. ORIENTALE*, *L.*Vern.—*Chhota-gokhru*, (?) HIND.; *Bun-obra*, BENG.; *Shankeshvara*, BOM.; *Mariyamulta*, TAM.; *Vericiel-nep*, TEL.; *Arisitha*, SANS.; *Jokahroo*, KULLAN, SIND.

A weed, met with everywhere throughout the plains of India, and a source of great annoyance to the cultivator. Common in waste places, river-banks and especially so in the vicinity of vil-

Economic Products of India.

ZANTHOXYLON.

In Dymock's *Materia Medica* the following account is given :—
“The whole plant is supposed to possess powerful diaphoretic & sedative properties. It is generally administered in the form of decocti and is said to be very efficacious in long standing cases of malarial fever.” (S. Arjun.) Mr. Baden-Powell says that the root is a bit tonic, useful in cancer and strumous diseases.

Xylocarpus Granatum, Koen. See *Carapa moluccensis, Lam.*, N. LACEAE.

XYRIS.

1236 Xyris indica, Linn., XYRIDÆ.

Vern.—*Chine ghás, dabeedoobee, BENG.*

Found in Bengal, South Konkan and Coromandel. Generally grows on sandy soils.

“The natives of Bengal esteem it a plant of great value, because they think it an easy, speedy, and certain cure for the troublesome erupti called ringworms. (Hon'ble John Hyde in a letter to Roxburgh.)

Yeast. See *Cerevisiae fermentum*.

ZANONIA.

1237 Zanonia indica, Linn., CUCURBITACEÆ.

Vern.—*Penar-valli, MAL.*

A plant of Assam and East Bengal, Deccan Peninsula, Malabar Mountains, and Ceylon.

The leaves, beaten up with milk and butter, are applied as a liniment in antispasmodic affections.

ZANTHOXYLON.

1238 Zanthoxylon alatum, Roxb., RUTACEÆ.

Syn.—*Z. HOSTILE, Wall.*

Vern.—*Tejbal, tumru, HIND.; Nepali dhanid, BENG.; Tumburu, SANS.*

Met with in the hot villages of sub-tropical Himalaya, ascending to 6,000 feet from Jamu to Bhutan, Khásia Mountains, altitude 2,000 to 3,000 feet.

Seeds and the bark are used as an aromatic tonic in fever, dyspepsia and cholera. The small branches are used as tooth-brushes ; the larger ones to triturate hemp plant ; they are also employed in toothache & catarrh, and are supposed to possess stomachic and carminative properties (Baden-Powell; *Pharmæ Ind.*)

1239 Z. Budrunga, Wall.

Properties similar to those of the preceding plant.

1240 Z. Rhetsa, DC.

Vern.—*Tessul, kokoo, chirphal, triphul, Bom., GOA; Rhetsa maum, T.*

Found in the Western Peninsula, from Coromandel and the Konkan southward.

The fruit is used medicinally for its aromatic and stimulant properties. The Mahomedan physicians consider it to be hot and dry, and to have astringent, stimulant and digestive properties. They prescribe it ~~as~~ *rhetsa*. (Dymock.)

Medicines.

ZEA.

Zeà Mays, Linn., GRAMINEÆ.

Vern.—*Bhutta*, HIND.; *Janar*, BENG.; *Khandarás*, ARAB.
Gandum-makkah, PERS.; *Makkah-jári*, DEC.; *Makka-shólam*, TAM.
Makka-sonnalu, TEL.; *Makai*, BAA, BOM.; *Praanlu*, BURM.

Largely cultivated in Upper India and the Himalayas.

Maize possesses the nutritive properties of the cereal grains generally but it is especially remarkable for its fattening quality. In South America a kind of beer called Chica or Maize Beer is made from the grain, and in Western Africa a favourite beverage is prepared from maize called *pittu* or *peto*. In the United States and elsewhere the meal is much used in the hospitals, and makes an excellent emollient poultice. Gruel prepared from it is also stated to be sometimes more grateful to the sick than that made from oat-meal. According to Landerer the silky styles and stigmata are used in Greece as a decoction in diseases of the bladder. (*Bentley and Trimen.*)

Zinkum.

ZINC.

Granulated zinc is used in pharmacy for the preparation of the chloride of zinc.

ZINGIBER.

Zingiber Cassumunar, Roxb., SCITAMINEÆ.

Vern.—*Bun-ada*, HIND., BENG.; *Vana-adraka*, SANS.; *Karpoooshpa*, TEL.;
Necana, MAHR.

Said to be carminative like the common ginger.

Z. officinale, Roscoe.

Vern.—*Adrak*, HIND.; *Ada*, BENG.; *Ardraka*, SANS.; *Zanjabil*, ARAB.;
Zanjable khushk, PERS.; *Shukku*, TAM.; *Sonti*, TEL.; *Chukka*,
MAL.; *Alen*, MAHR.; *Ginsi-khiau*, BURM.

Cultivated in many parts of India for its root.

“Ginger is described as acrid, heating, carminative and useful in dyspepsia, affections of the throat, head and chest, piles, rheumatism, urticaria, dropsy, &c.” (*Hindu Materia Medica.*) The *Pharmacopœia Indica* describes the root as stimulant, stomachic and carminative. It is useful in flatulence, flatulent colic, spasmodic affections of the bowels, and in chronic rheumatism. It acts as a stimulant and rubefacient when applied in certain forms of headache, toothache, various affections of the throat, and in shortness of sight dependent upon deficient power in the contractile tissue of the iris. When chewed it acts as a sialagogue, and is sometimes used in relaxed states of the uvula and tonsils. It is also used as an adjunct to various purgative medicines to correct their griping tendency.

ZIZYPHUS.

Zizyphus glabrata, Heyne, RHAMNÆ.

Vern.—*Carookoova*, TAM.; *Kakopala*, TEL.

Found in Eastern Bengal and Bhutan, in Western Peninsula and the Nilgiri Mountains.

A decoction of the leaves is given to cachexia. (*Ainslie.*)

Zizyphus Jujuba, Lamk.

Vern.—*Bdr, baer*, HIND.; *Kalj bdr*, BENG.; *Badari*, SANS.; *Sidr*, ARAB.; *Kusar*, PERS.; *Bora*, MAHR.; *Zeeben*, BURM.; *Rengha, regi*, TEL.; *Yelanda*, TAM.; *Yachi*, KAN.

Cultivated throughout India and Burma.

The fruit called jujube is said to be nourishing, mawkish, mucilaginous, pectoral and styptic. The berries are considered by the natives to purify the blood and to assist digestion. The bark is said to be a remedy for diarrhoea. The root is used in decoction in fever and powdered to be applied to ulcers and old wounds. The leaves form a plaster in strangury. (Bader-Powell.)

247 Z. nummularia, W. & A.

Vern.—*Karkhana*, ARG.; *Malla, btr, jhari, kanta*, N. W. P.; *Nunjangro*, SIND.; *Parpalli*, KAN.

Drier parts of North-West India and the Deccan.

The fruit is used in bilious affections; considered by natives cool and astringent.

248 Z. vulgaris, Lamk.

Vern.—*Unndb*, ARAB., BOM.

Found in Punjab, extending to the Western Frontier; and in the Punjab Himalaya ascending to 6,500 feet, wild and cultivated, extending to Bengal.

The dried fruits are regarded as a suppurative, expectorant, and purifier of blood. The bark is used to clean wounds and sores. The leaves when chewed are said to destroy the power of the tongue to appreciate the taste of disagreeable medicines. (Dymock.)

